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NARIS SINGWANGCHA
President, Tug of War Thailand Association



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Message from President of ICET

Sawasdee Krab!

It is a great pleasure and privilege to welcome you to the 57th World Assembly of International Council on Education for Teaching (ICET). The 2013 World Assembly provides an opportune moment to shine a light on the individuals and organizations from around the world who contribute to innovations in education. The ICET World Assembly is not a traditional research conference. The size of the conference allows it to be a place where a diverse community of researchers, policy makers and practitioners can truly connect to discuss and disseminate innovations designed to improve educational environments and outcomes for all learners.

On behalf of the Board, I wish to personally thank the leadership of the Sukhothai Thammathirat Open University for making an ICET World Assembly in Thailand a reality for our delegates who have travelled from near and far. The local organizing committee has assembled leading key note presenters to discuss issues of Multiliteracies, Distance Education and the challenges of education in developing countries. They have also designed a conference program that allows delegates to explore the contribution of teacher education to quality learning environments in 21st century education through the five sub-themes of the assembly. Included in their design is an opportunity to experience first-hand the learning environments created in some of the local schools.

ICET members always look forward to the annual World assembly to catch up on global developments in teacher education as well as catch up with new and existing colleagues. I invite first time and returning attendees to continue this tradition during the session breaks and special social events throughout the week. Our Board members, who also serve as conference ambassadors, will be available during the breaks to help facilitate connections. We have arranged for Board members to wear special ribbons to assist you locate one should you need to locate one during the week.

Finally, I would also like to thank the Asia Pacific regional office of UNESCO in Bangkok for providing Chief of Education Policy and Reform Unit (EPR), Mr. Gwang-Chol Chang as a key note speaker. ICET holds associative status with UNESCO and serves as an elected member of their NGO liaison committee. Our current contribution to UNESCO includes taking the lead on organizing an international NGO forum on Education at Paris headquarters on September 23, 2013. This will be followed up by a Global Education First Initiative (GEFI) conference in Chicago, later that week. To promote inclusive internationalization there will be opportunities for virtual attendance and/ or access to translators via virtual breakout rooms

On behalf of the ICET, I look forward to welcoming our 57th World Assembly.



Prof James O'Meara
President of ICET

Message from President of STOU

It is my great pleasure to welcome you to Sukhothai Thammathirat Open University (STOU) for the 57th World Assembly of the International Council on Education for Teaching. We are delighted to have you here and hope you enjoy the conference and your time in Thailand.

STOU was founded as Thailand's eleventh state university in 1978 and the first open university in Southeast Asia to teach via distance education. We offer a full range of programs using distance education, allowing anyone, anywhere, to take advantage of the benefits of higher education. This means that our programs serve the educational needs of working professionals, traditional bachelor's degree students, and learners who might find it difficult to attend a conventional university, such as disabled people, those living in remote areas and prison inmates. In three and a half decades of existence, STOU has had a significant impact on Thai society; as approximately 450,000 graduates have gone on to apply their knowledge and skills for the benefit of society.

I would like to emphasize that the university's human resources are the heart of the university, with ICT and language as tools for addressing the educational challenges of the present and future. In the near future, STOU will broaden our provision of distance education beyond Thailand when we open our first international program, the Master's Degree Program on Communication Arts for ASEAN. In this exciting time as Southeast Asia prepares for greater regional integration through the ASEAN Economic Community, we look forward to boosting our role in the region's educational outlook through this program, which will be the first of its kind in Thailand.

I would also like to thank those who have helped make this conference possible, especially the ICET Board of Directors for selecting our university to host the 57th World Assembly. STOU has enjoyed a long relationship with this esteemed organization, having hosted the 31st World Assembly in 1984, and we are greatly honored that the conference is returning to Thailand at this time.

Finally, I would like to wish you all an enjoyable and productive World Assembly. I am confident that the distinguished keynote speakers, presenters and participants will make this a memorable occasion.

Once again, thank you for coming to STOU for the 57th ICET World Assembly, and we are truly grateful for this chance to share our Thai hospitality with you.



Assoc. Prof. Chailerd Pichipornchai, M.D., Ph.D.
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Keynote Speakers



Learning Styles and Brain-Based Learning

Assoc. Prof. Dr. Chailerd Pichitpornchai

President, Sukhothai Thammathirat Open University, Thailand

Assoc. Prof. Chailerd Pichitpornchai, M.D., Ph.D. is the current President of Sukhothai Thammathirat Open University (STOU), a position he has held since February 2013.

Prior to this, Dr. Chailerd spent many years as an instructor and administrator in Mahidol's Faculty of Medicine at Siriraj Hospital for many years. From 2008-2011, he was the Vice President for Planning and Information Technology at Mahidol University, and in 2009, he also assumed responsibilities as the Director of the Division of Information Technology. For STOU, he was an advisor on information technology issues, served on many administrative committees and subcommittees, and led evaluators in internal quality assurance inspection for the Office of the Higher Education Commission.

Now approximately six months into his term as STOU President, Dr. Chailerd is leading the university in an effort to become an ICT-driven institution that capitalizes on the potential of its human resources by using ICT and language as key tools in developing operations that meet present and future challenges.

Learning Styles and Brain-Based Learning

Brain-Based Learning (BBL) is the learning process based on the preferred sensory perceptual modality of learning in each individual. In education's point of view, learning includes perceptions of data, information and knowledge from learning resources, such as teachers, human beings, printed materials, electronic materials in any forms, and any real life experience. In teaching and learning process's point of view, learning can be done inside or outside the classroom. Most teachers would teach in their preferred teaching styles, such as giving lectures, demonstrations, and discussion, without any concern on the learners' preferred learning styles or their brain-based learning.

In physiology of leanings point of view, learning is started from perception of energy stimuli via sensory receptors and organs, such as vision by eyes, hearing by ears, smell by nose, taste by tongue, other cutaneous sensation by skin, body position by inner ears, body balance by muscle tendons and joints. The information is then transmitted to the brain and processed, resulting in the more detailed sensory perception in the higher center in the brain, calculation, thinking, feeling, emotion, learning, and memory. Finally, one would voluntarily command his skeletal muscles via somatic nervous system to move towards or away from the stimuli resulting in human behavior, and also resulting in involuntary responses on his smooth muscles and heart muscle via autonomic nervous system.

One of the popular theories on brain-based learning is "VARK Learning Styles" based on perceptual modality, i.e. visual style (V), auditory style (A), read and write style (R), and kinesthetic and tactile style (K). Human being has his own preference on his learning style which could be single modality, two or more modalities. A number of research have shown that if learning stimuli perceived through the preferred perceptual modality of the learners, the learners would be able to learn easier and faster, and longer memory retention. This also enhances integration of old and new knowledge, synthesize new knowledge and application.

In order to implement the brain-based learning, it is necessary to analyze the audience and classify into VARK Learning Style, design the instruction according to the learners' preference, perform appropriate teaching and learning processes, evaluate the learning outcome, and correct or adjust regularly to increase the efficiency and efficacy of the learning outcome.



"The Influence of the ASEAN Community on Global Education"

Dr. Surin Pitsuwan

Former Secretary General of ASEAN

Dr. Surin Pitsuwan has been involved in the public sphere for roughly three decades. In 1983, he was selected for the American Political Science Association's Congressional Fellowship Program, when he interned in the Congressional Office of US Representative Geraldine A. Ferraro (D-New York). He returned to Thailand in 1984 to his teaching position at Thammasat University and ran for a Parliamentary seat from Nakorn Sri Thammarat, his home province. Starting in 1986, Dr. Surin won a total of eight terms in Parliament. As an MP, he was appointed Secretary to the Speaker of the House of Representatives (Chuan Leekpai), Secretary to the Deputy Minister of Interior, Deputy Minister for Foreign Affairs (1992-1995), and Minister of Foreign Affairs (1997-2001). He served as Chair of the ASEAN Ministerial Meeting and the Chair of the ASEAN Regional Forum in 1999-2000.

In this capacity, he led efforts in September 1999 to get Southeast Asian governments to restore law and order in the region; that joint undertaking, with the support of the United Nations and the international community, helped bring about peace and security in East Timor.

He also served as an advisor to the International Commission on Intervention and State Sovereignty from 1999-2001. Upon leaving the foreign affairs portfolio in mid-2001, Dr. Surin was appointed to the United Nations Commission on Human Security, until 2003. In 2002, while still a member of the UN Commission, he concurrently served on the ILO's World Commission on the Social Dimension of Globalization until 2004. He is currently on the Advisory Board of the UN Human Security Trust Fund, the Advisory Board of the International Crisis Group (ICG), a member of the International Advisory Board of the Council on Foreign Relations in New York, an International Academic Advisor of the Centre for Islamic Studies at Oxford University, and an advisor to the Leaders Project, a conference arm of the Cohen Group of former US Secretary of Defense William S. Cohen, in Washington, D.C. From 2002 to 2004, Dr. Surin was also a member of the "Wise Men Group" under the auspices of the Henri Dunant Centre for Humanitarian Dialogue (HDC) in Geneva, advising the peace negotiations between the Acehese Independence Movement (GAM) and the Government of the Republic of Indonesia. He served as a member of the Islamic Development Bank's 1440 A.H. (2020) Vision Commission under the leadership of Tun Dr. Muhammad Mahathir, former Prime Minister of Malaysia, in June 2005.

Dr. Surin was a Deputy Leader of the Democrat Party, Thailand. He also served on the National Reconciliation Commission (NRC), charged with bringing peace and security back to Thailand's deep South. He was appointed to the National Legislative Assembly (NLA) before assuming his post as the Secretary General of the Association of Southeast Asian Nations (ASEAN) from 1 January 2008 until 31 December 2012. During that period he was tasked with implementing the ASEAN Charter and preparing the region to enter into the ASEAN Community in 2015.

One of his most recognized accomplishments was to lead the ASEAN Member States and the United Nations and other international institutions such as the World Bank, ADB and various other International NGOs to enter and aid Myanmar after the catastrophe of Cyclone Nargis in May 2008, remaining until operations were successfully completed in December 2010. Dr. Surin has been conferred 13 honorary doctorate degrees, including ones from the National University of Malaya (UKM), University Purta Malaysia (UPM) and Bristol University (UK). After his term as Secretary General of ASEAN, Dr. Surin has been appointed Professor Emeritus at Thammasat University and also an Honorary Advisor and Distinguished Visiting Fellow at the King Prajadhipok Institute, established by the Thai Parliament. He is now involved in promoting education among the younger generation of the Muslims in Thailand. Dr. Surin will address the main conference theme in a keynote on the aspect of "The Influence of the ASEAN Community on Global Education".



*“Writing a New Script for School Reform:
Multiliteracies
in a Low Socioeconomic,
Mixed Race School”*

Prof. Allan Luke

Research Professor, Queensland University of Technology, Australia

Allan Luke is Research Professor at the Queensland University of Technology, Brisbane, Australia, where he teaches literacy education, sociology and policy. He has published 15 books and over 200 articles and chapters in the fields of education, sociology, linguistics, cultural studies. His work has appeared in most major education journals including: Canadian Journal of Education, Harvard Educational Review, Teachers College Record, Reading Research Quarterly, Educational Theory, Curriculum Inquiry, Linguistics and Education, Journal of Pragmatics, Cultural Politics and Australian Educational Researcher.

Over the last two decades he has been senior editor of: Pedagogies (Routledge), Teaching Education (Routledge), Review of Research in Education (AERA), Discourse (Routledge) and the Journal of Adolescent and Adult Literacy (International Reading Association). Luke is a dual Australian/Canadian citizen. He grew up in the Chinese-American community in Los Angeles in the 1950s, studied at UC Santa Barbara before migrating to Canada in 1973. He taught elementary and secondary school in the Fraser Valley, the North Okanagan and Burnaby before finishing his graduate studies at Simon Fraser. In 1984 he moved to North Queensland to teach at James Cook University, where he was assigned to the Aboriginal and Torres Strait Islander teacher education program. There he worked on the development of models of critical literacy (the four resources model) and, with the New London Group, on the development of "multiliteracies". He was Dean of Education at the University of Queensland (1996-2003) and Deputy Director General of Education/Ministerial Advisor for the Queensland government (1999-2003), responsible for state reform of curriculum and assessment. From 2003-2005 he was establishment Dean of the Centre for Research in Pedagogy and Practice, National Institute of Education, Singapore, the largest educational research centre in East Asia. He has received the Educational Press Association of America Merit Award, the Gold Medal of the Australian College of Education, AERA Curriculum Studies Book Award; he was inducted into the International Reading Association Hall of Fame and was named 2004 IBM/Bulletin Australian Educator of the Year, with honorary doctorates from Simon Fraser University and Rajabhat Rajanagarindara University, Thailand. He is an Honorary Professor of Beijing Normal University has done policy work for the OECD, Hong Kong, Singapore, Thailand, Kiribati and New Zealand. He has recently completed a 4 year longitudinal study of Indigenous school reform for the Australian federal government and is about to embark on work for the establishment of a progressive educational research centre in Jerusalem with the Van Leer Foundation.

Writing A New Script For School Reform: Multiliteracies In A Low Socioeconomic, Mixed Race School

One of the most significant myths of urban school reform in the West is as follows: that the 'failure' of cultural minorities, Aboriginal peoples, migrants and poor students can be rectified by a return to the "basics" of print literacy and numeracy skills via an increased attention to standards, testing and accountability. This approach to reform has been underway for over two decades in countries like the UK, US, Australia and elsewhere - and the evidence suggests that it has not been successful. My talk will focus on two alternative models that we have brought together successfully working with the teachers and students of one low socioeconomic, mixed-race school in Brisbane over a four year period. This has involved bringing together a "pedagogy of multiliteracies" (New London Group, 1996) with whole school curriculum planning using the "four resources model" (Freebody & Luke, 1990). The result has been documented improvement on several fronts: a stronger engagement with local Indigenous culture and knowledge, a coordinated approach to literacy teaching, a teacher professional development focus on engaging students with substantive knowledge and "reading the world", and the use of inexpensive digital technology to produce videos and music. The result has been overall improvement in student achievement on conventional test scores, improved attendance and strong school/community aspirations and progress. Drawing on work with governments in Asia, Australia and Canada - I'll conclude by describing the policy settings and resources implications of a focus on whole school renewal and curriculum planning.



“Barriers to Quality Learning”

Mr. Gwang-Chol Chang

Chief of Education Policy and Reform Unit, UNESCO Bangkok, Thailand

Mr. Gwang-Chol Chang is Chief of Education Policy and Reform Unit (EPR) at UNESCO Bangkok (Asia-Pacific Regional Bureau for Education) since May 2010. He coordinates UNESCO’s regional work for policy research, knowledge management and capacity development support in the fields of education sector policy, planning, management, financing as well as secondary education, technical and vocational education and training, and quality of learning in Member States of the Asia-Pacific region.

From 1996 to 2010, he worked at various units of UNESCO’s Education Sector in Paris, dealing with issues of educational reconstruction, education policy analysis, planning and management. He provided technical and capacity development support for dozens of developing and transition countries across all regions. Before joining UNESCO in 1996, he worked at the Planning Department of the DPR Korea Ministry of Education. Gwang-Chol Chang holds a Doctorate in Education (Ed.D) from Kim Hyong Jik University of Education, DPR Korea. We look forward to learning from him about issues facing education in developing countries.

Barriers to Quality Learning

As the year 2015 approaches, the international education community and others around the world are increasingly concerned with meeting the educational targets of the UN Millennium Development Goals (MDGs) and Education for All (EFA). With more and more children worldwide now enrolled in school, there is a growing concern that the quality of education in many developing countries has stagnated or even worsened. The issue of quality and the subsequent question of whether and how well students are learning are therefore occupying an increasingly prominent place in international discourse on education.

While there are many different drivers or building blocks for ensuring an education of good quality, three particularly important factors are: 1) an adequate supply of qualified teachers; 2) teaching and learning that promotes acquisition of the skills and competencies needed for today's livelihoods and the needs of life in the 21st century and 3) appropriate systems of student evaluation and assessment to ensure that students are actually learning. The presentation will focus on these three elements, drawing upon comparative analysis conducted by the UNESCO Asia-Pacific Regional Bureau for Education (UNESCO Bangkok) for the Asia-Pacific region, information from UNESCO's Education for All Global Monitoring Report and other sources.

In addition, the presentation will examine the changes which have taken place since the year 2000, when the Dakar Framework for Action for Education for All was launched. Among the more recent developments are the launch of the UN Secretary-General's Global Education First Initiative (GEFI) in 2012 and the current efforts to chart the post-2015 education and development agenda. The work of UNESCO Bangkok and the perspectives of the Asia-Pacific region in relation to these developments will be highlighted.

Concurrent Sessions

Sub-theme 1
Alternative, Community and Sustainable Education

Bangkok World Book Capital 2013: How does it Promote Reading Culture?¹



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Abstract

Since UNESCO nominated Bangkok the World Book Capital 2013, Bangkok Metropolitan Administration (BMA) launched its public communication campaign, Bangkok Read for Life, in order to achieve the goal in 2013. This article extends from an evaluation research of this readership promotion campaign. It intends to investigate the communication strategies, plans and implementations; how the nomination of the World Book Capital 2013 and its campaign could foster reading culture among Thai public. The campaign was successful in utilizing participation strategy, which drew both governmental and non-governmental organizations (e.g. book publishers, schools and libraries) to elevate reading activities around Bangkok. Although the data showed increasing quantities of campaign outputs (e.g. reading activities, book promotions, participation of readers and publishers networks), the outcome or effectiveness of love reading cultivation was still questioned. Increasing numbers of activities could affect public awareness of reading. However, quantities alone do not correspond to qualities especially cultivating reading habit among Thai youth. Affective and behavioral effects should be concentrated in the coming-year readership promotion campaign. It is crucial to establish and support an expansive and comprehensive reading promotion campaign that will inspire Thai public to read more widely and frequently. Information provision via mass media should be more comprehensive and still needed continuity for cultivating reading attainment.

Keywords: Reading culture, Readership promotion, Public communication campaign, World Book Capital, Bangkok Read for Life

I. Introduction

“Bangkok Read for Life” was a public communication campaign promoted by Bangkok Metropolitan Administration (BMA). The idea of readership promotion was initiated after a research study done by the National Statistical Office (2008) found that average Thai public reading was around 27 minutes per day, which was very small numbers. Also, books for kids aged 0-6 were only 4-5% in bookstores. The concerns of fostering reading culture have occurred occasionally. During the past decade the National Statistical Office has collected

¹ This article is developed from an evaluation research of “Bangkok Read for Life” campaign sponsored by Bangkok Metropolitan Administration in 2011. The research team includes Asst. Prof. Dr.Wunlapa Sabaiying, Assoc. Prof. Dr.Somkid Promjouy and Assoc. Prof. Dr.Chittinun Tajagupta from Sukhothai Thammathirat Open University.

data of Thai people reading activities every two to three years. The current data in 2010 indicated an improvement that Thai people spent an average of 94 minutes per day for reading (*Thai Post*, 2011).

The statistics of the year 2008 urged Thai government announcing a policy of promoting reading culture in its national agenda in 2009 and initiated a ‘Decade of reading’ from 2009 through 2018. Thai government allocated more than 30 million dollars for reading programs, with the budget to be divided among projects that promote reading, establish reading spaces, and form reading networks emphasizing on both formal and non-formal education settings. To boost access to reading materials and encourage the involvement of the private sector, the Financial Ministry also proposed tax deductions on the purchase of books for donation to schools and libraries (BMA, 2012).

At similar period BMA also proposed to UNESCO, and finally being nominated the World Book Capital 2013. The purpose of “Bangkok Read for Life” campaign is not only to increase awareness of the World Book Capital nomination but also to foster public reading culture among Thai people. The author then questions how this nomination and its campaign could promote readership culture of Thai public.

In evaluating public communication campaigns, Valente (2001) suggested three evaluation frameworks: formative research, process research and summative research. The evaluation research of this readership promotion campaign concentrated on process research. It measures the degree of program implementation to determine whether the program was delivered as it was intended. A mixed-method evaluation was applied to collect data from various sources. The research project applied document review, questionnaire survey and interviews. Document review focused on communication strategies and plans of the campaign. A thousand questionnaires were distributed in Bangkok area to collect data from all walks of life. Also, around 59 informants responsible for promoting the campaign were interviewed both one-on-one and in groups. They were BMA officers, volunteers from related NGOs, representatives from Thai Health Promotion Foundation, publishers, writers, translators, librarians and educational experts. In the next sections, there is a brief background of the World Book Capital initiated by UNESCO, followed by an overview of the Bangkok Read for Life campaign, the research findings and discussion.

II. Nomination of World Book Capital

UNESCO started the World Book Capital city since 2001, which Madrid was firstly nominated. The purpose of nomination is “...not imply any financial prize, but an exclusively symbolic acknowledgement of the best program dedicated to books and reading...” (UNESCO, 2012). UNESCO accepts all applicant cities yearly from around the world. The mayor of the candidate cities have to present or endorse the nomination aiming to promote books and foster reading culture in the city during the period of nomination. Some criteria of the nominated capital city include qualities and quantities of fostering reading and promoting books activities, involvement of various organization both governmental and non-governmental sectors, as well as following the principles of freedom of expression and freedom of publishing and distribution of information. The capital cities previously being nominated include Alexandria, Amsterdam, Delhi, Montreal, Buenos Aires, Beirut, Turin, etc.

BMA and the Publishers and Book Sellers Association of Thailand (BUPAT) had previously proposed Bangkok the World Book Capital in 2006, but it was not successful until

the second attempt in 2011. After UNESCO announced Bangkok the World Book Capital 2013 in June 2011, BMA had to start its readership promotion campaign in order to meet the UNESCO criteria in 2013. The World Book Capital nomination has been questioned by Thai media and public, since most people have been familiar with the news coverage highlighting a small numbers of books reading in Thai society. This challenges BMA to launch the readership promotion campaign after being nominated the World Book Capital 2013.

III. Bangkok Read for Life Campaign

The campaign of readership promotion named ‘Bangkok Read for Life’ embedded four main concepts: read for conserving Thai culture, read for improving living quality, read for love, and read for writing and communication. The campaign situated 5 strategies: (1) mass communication strategy to shift social paradigm; (2) continuous policy strategy; (3) participation strategy of all reading promotion organizations network; (4) extension of reading space and resource strategy; (5) promotion strategy on wide variety of reading activities. These strategies intended to increase awareness of reading culture as well as fostering reading activities among different target audiences.

The proposed plans and activities submitted to UNESCO included: set up Bangkok City Library, Thai Literacy Museum, Thai Cartoon Museum, Research Center for Books and Reading; create more reading activities among kid, parents and school (e.g. book club, read on the move, children book swap, national book fairs, etc.); and host International Publishers Association (IPA) Symposium in 2014. All plans and activities have to be done by the year 2013. After one year of the campaign implementation, some activities and plans have been successfully done; but some still should be done in the up-coming year.

An achievement or success of a public communication campaign is determined relatively to what is desired or expected. Mostly the criteria of effectiveness of a communication campaign are differently and subjectively interpreted among policy-decision makers, program staff and marketers (Salmon and Murray-Johnson, 200). Likewise, the success of this reading promotion campaign was also defined differently between the campaigners’ perspectives and audiences’ perspectives. BMA viewed the success of this public communication campaign in terms of process evaluation, while others viewed the success in terms of effectiveness of promoting reading culture among Thai public.

Data from reviewing the document and interview key informants found that the five strategies of Bangkok Read for Life campaign were partly successful. The first strategy focused on public communication via traditional mass media (TV and radio commercials, printed advertising, billboard and outdoor advertising) and new media (website, blog and other social media). However, public communication thru mass media and other new media could only increase some knowledge of the World Book Capital 2013, but moderately encourage and create awareness of reading culture. The campaign message did not advocate the pride of the World Book Capital nomination; rather, it informed public about the nomination. Also, the campaigners selected well-known ambassadors—an actress and a popular show host—but did not use them wisely. Not many people knew they were the presenters of the campaign.

In contrast to mass communication strategy, participation strategy drew more than 500 government agencies, private sectors and civic organizations to participate in fostering reading activities around Bangkok. These networks have extremely assisted BMA to achieve Bangkok Read for Life campaign. For instance, the national book fairs hosted by PUBAT got

more than 30% increasing of both publishers and readers. Another two successful strategies were extending reading spaces and resources, and promoting wide range of reading activities. These strategies targeted children, youth, and marginal groups (such as school, mosque, disabilities, and prisoners). For instance, read-on-the-move program installed more than 5,400 books in metro buses, taxi and other public places; BMA also extended Bangkok libraries service hours and other thousand libraries around Bangkok. However, the establishment of city library, cartoon museum, and research center for books and reading did not start, but they have to be done by the year 2013.

Whereas interview and document data stated successful campaign implementation especially participation strategy, promoting reading activities, and facilitating reading resources and spaces; survey data were slightly different. Public media exposure was still highest in television viewing (raking the first 67%) followed by internet serving (ranking the second 34%) and newspaper reading (ranking the third 32%). The three most popular contents were entertainment news, political news and economics news, whereas prime-time TV drama was ranked the forth popular content. Newspaper was still the first choice in reading selection (66%) followed by magazine and fiction. Around half of the respondents (53.1%) stated that they knew or had heard the Bangkok Read for Life campaign. Also, 43.2% of the respondents had been informed the Bangkok World Book Capital 2013. Some of them suggested more public communication activities. However, the respondents' awareness of the World Book Capital was high and they agreed that the focal segment of this reading campaign should be schools, families, religious places (temple, mosque, and church), hospitals, and park. In addition, 32.2% of the respondents stated that they would increase book reading around 1-10 books yearly, while 24.5% stated an increasing of more than 100 books yearly.

IV. Discussion

Definition of public communication campaign can focus on objectives and methods. In terms of objectives the public communication campaign emphasizes on campaigners' intention to change their target audiences' beliefs or behavior. In contrast, uses of innovative or controversial methods in a public campaign come to the fore in the campaign focusing on methods (Paisley, 2001). The Bangkok Read for Life campaign focused on objective definition; that is, it intended to change in KAB (Knowledge-Attitude-Behavior) of target audiences. However, KAB model might not be linearly followed. Increase in knowledge might lead to attitude change, but might not lead to behavioral change if the targets do not perceive the outcome of behavioral change has relatively advantage. The Bangkok Read for Life campaign should insist some key messages; such as the importance of reading for life, giving book as a gift, and pride of the World Book Capital.

Suggestions from the strategic managers of this project included promotion of community reading activities and creating the pride of the World Book Capital. BMA continued the three-year readership promotion campaign (2011-2014) even after the nomination ends. Therefore, the focal messages in each year campaigning should be carefully planned and considered. The next coming year message should not merely aim at cognitive and affective effects (inform public of the nomination and create the pride) but also aim at behavioral effects (prioritize book reading activities, create awareness of importance of reading, provide frequency reading activities and supply resources, etc.)

Paisley (2001) defined public communication campaign as a strategy of social control. He elaborated the "three E's" concept: education, engineering, and enforcement. These three

concepts were widely employed in order to promote change in social behaviors. For example, the U.S. Foresters conducted public communication campaign to inform and educate people how to access park and forest with awareness of conserving the nature. They also engineered campsites by installing fire-safe places and durable equipment. Lastly, the enforcement took over, when there were any violation damaging the forests. Paisley (2001) summed that the last two E, engineering and enforcement, are less feasible while education is the strategy that is worth pursuing. Thus, social control should shift to the process of communication.

Many public communication campaigns have focused on prohibiting a social habit especially public health campaigns, e.g. anti-smoking, don't drink and drive, HIV/Aids. These campaigns have ordinarily applied the three E's (education, engineering, and enforcement). Nevertheless during the past decade there has been a shift toward prevention and pro-social campaigns, such as exercise more, eat less trans-fat, energy saving. This readership promotion campaign could be also classified a pro-social campaign, encouraging a social behavior rather than prohibition of a particular habit. It is not feasible to apply enforcement strategy in some pro-social campaign—exercise more, consume less salty, use energy wisely—including this Bangkok readership promotion campaign.

BMA could employ the three-E's concept in its readership promotion campaign. The Bangkok Read for Life campaign in 2011 involved educating and engineering. Public communication strategy via mass media and social media still need to be continued in order to continuously increase awareness of reading culture. In addition, the main strategies strongly recommended are participation, drawing variety of reading and publishing networks, and provision of reading resources and spaces. The former tactic (mass communication) focuses on educating concept, whereas the later two (participation and facilitating) focuses on engineering concept. However, the last E –enforcement—would be difficultly applied as Paisley (2001) mentioned. This due to the fact that readership promotion is a pro-social campaign, not prohibition. It needs enforcement to encourage pro-social habits (e.g., reading more, saving energy) rather than enforcement to ban particular habits (e.g., no smoking, don't drink while drive). Enforcement should come from the national government policy to encourage pro-social habits, such as tax deduction of books purchasing, some exemption for publishing business, etc. This enforcement should come from the national government instead of local government or BMA. Even though the Financial Ministry in 2008 had proposed tax deductions on the purchase of books for donation to schools and libraries, there have been no evidences of implementation.

Campaign of giving books as a gift could be another choice for promoting readership. A research in UK (Clark, et. al., 2011) found that ownership of books, access to reading materials, frequency of reading and attitudes to reading were all relating factors affecting children and youth reading abilities. Receiving books as present encourages children and youth to enjoy reading pleasure. BMA could apply a parallel concept from Thai Health Promotion Foundation, which had successfully launched a campaign to refuse alcohol gift during holiday season in order to decrease the cause of drink-drive death.

V. Conclusion

Oral culture is cultivated in Thai culture for such a long time. In other word, traditional Thai communication culture focuses on listen and talk rather than read and write. Many survey of media exposure including this research found television viewing is the highest number of media exposure. Hence, fostering reading culture among Thai public is more

difficult while the society is bombarding with broadcasting and internet technology. However, it is crucial to establish and support an expansive and comprehensive reading promotion campaign that will inspire Thai public to read more widely and frequently. Cultivating reading culture in a nation is not merely in terms of increasing literacy rates and expansion of educational system, but inspire Thai public to read more widely and frequently as well. Public communication via mass media and social media should be employed strategically. Many activities from participatory networks (publishers, writers, translators, schools and library) were not publicized. It seems all five strategies were planned and implement separately. The campaigners, BMA in particular, should increase and link those strategic implementations. Lastly, the government had almost forgotten its national agenda declaring in 2008. There should be an evidence that “Decade of Reading” and reading as national agenda still be prioritized. Campaign from national government agencies should be tightened with the local government such as BMA. Extension of the readership promotion campaign to other provinces should also be initiated.

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Closing Gaps in Education; What Role can TESSA, Open Education Resources (OER) Play? Uganda, a Case Study



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Abstract

The gaps that exist in Education systems in Uganda are clear. Suffice it to mention, lack of instructional materials, poor and negative attitudes of teachers and pupils, pupils laxity, large numbers in small classes, lack of promotional paths for teachers, indecent working environment, inadequate training for teachers, limited economic resources, and inappropriate training methods. In addition UNESCO observes that millions of children emerging from primary school have reading, writing and literacy skills “far below expected levels”, and that the quality of education remains low (UNESCO, 2011: p. 5).

Fortunately all those gaps mentioned can be closed with the use of TESSA OER materials that are already in use in selected primary and secondary schools, teacher training colleges and universities in Uganda. This paper illustrates the possible availing of instructional materials, in all corners of the country, through harnessing the TESSA OER materials. This paper further shows how TESSA opens access to every school wherever it is based, using a variety of options to access them; CD, ROMs, direct download from the TESSA website, and sharing downloaded print copies.

The paper also explores how the teachers have realized that using TESSA OER make teaching enjoyable, and also that the pupils themselves become resources. The paper further illustrates how TESSA guides the teacher on how to teach large numbers, how to utilize groups in class, and how TESSA has helped in killing the mentality among teachers, of limited resources within their reach, for they continually explore the vast teaching materials within the classroom, the school environment and the community at large.

1.0 Introduction

The sub Saharan region is characterized by education systems that depict deep gaps. Anamuah-Mensah (2011) associates the gaps to disempowering situations, citing issues like high pupil/teacher ratios, urban/rural divide and teacher centred pedagogy. Uganda Education system is not any different and shows various gaps emanating from historical, political and social factors. The gaps that come out so vividly are inadequate resources particularly relating to lack of appropriate written sources, lack of physical facilities, inadequate supply of well trained teachers, and the stigma of underrating vocational/ practical education, thus elevating mostly academic based education.

It is unfortunate that the gaps in Uganda are manifested among the products of the education systems that largely demonstrate job seeking rather than job creation tendencies. A number of organizations are working round the clock to see to it that education at all levels become relevant, qualitative and practical if the development problems of Uganda are to be addressed. The Uganda National Teachers Union (UNATU) is one of such organizations. This paper is based on the issues that arose out of the UNATU national consultative meeting held in Kampala, the capital city of Uganda that called upon members of the Union to congregate and expose the major gaps in the education system with the aim of identifying ways and means of addressing them. The writers of this paper attempt to argue and demonstrate that use of TESSA OER material is one of the major solutions of many of the identified gaps during the UNATU consultative meeting.

1.1 The Historical Background That Explains the Educational Gaps in Uganda?

The gaps that exist in the education system in Uganda are grounded in a context that is purely a result of History. Education was introduced in Uganda by the missionaries in the late 19th Century. The aim of education during that period was the production of human resources to work in the then colonial administration as clerks. Those that worked in various ministries during that period worked in white collar jobs that were much more paying than the blue collar jobs, as the vocational based trained human resources were referred to. Hence the preferred education among key stakeholders (the parents) became basically academic in nature, a problem Uganda has lived with since as Muyingo (2000) explains. It is important to find out then given the historical background, what education is relevant to Ugandans and how does it come to be relevant. Some of the answers may be found however in the content of the theories of education that the authors found to be relevant to that cause.

2.0 Some Selected Theories That Underlie Effective Education

The theories that seem to explain and account for effective education practices are embedded in behaviorism and cognitive psychology. The behaviorist theories were advanced by Pavlov in the 19th century when he introduced the idea of conditioning in order to acquire a behavior you want from the learners. It is argued that the trainer also should , acquire a clear view of the behavior he/she wants to change; (introduce, strengthen or eliminate), the sequencing of events or ‘stimuli’ to bring about this change, the association or link between the stimuli and the subject’s response and the importance of reward or punishment in motivating the learner as Orison Carlile and Anne Jordan(2003) explores.

Much as behaviorism is criticized because of its teacher-centered approach to teaching and learning it has some merits. In its favour, Behaviorism builds on aspects of practices that breed effectiveness. These include the importance of repetition in learning, of presenting strong and varied stimuli of careful planning, and the sequencing of learning events, and of specifying achievable and verifiable learning objectives in the form of learning outcomes. The behavioral approach seem to apply to the use of TESSA OER materials which as will be seen later in this paper addresses this very well through activity based learning that make the students look forward for a lesson and enables them to change, the stimuli being the use of OER materials in a classroom situation.

As far as cognitive theories are concerned, the key person propagating is Piaget (1990) who argues that knowledge is acquired by the natural development of mental structures as the child responds to experience. Piaget’s concept of ‘de-centering’ or being able to see the world from different points of view - an important stage in the development of abstract thinking is very vital to education systems that thrive to be effective. His concept of ‘de-centering’ can

be applied to older learners too, since a mark of an educated person is the ability to ‘generalize’ and see the world from a number of different perspectives and yet this exactly is one of the key recommendations under which TESSA OER materials operate. The learner is introduced to various approaches in the Mathematics module and Science Modules for example that reduce the abstract nature of the subjects.

2.1 Contextual Issues Connected To Gaps in Education Systems, The Case of Uganda

The situation in schools today is appalling as decried by various literatures from the mass media, concerning Uganda. The guardian quotes Uwezo Uganda National Report (2011), which points out that a disturbing number of Primary Leaving Examinations (PLE) candidates under the UPE program cannot read or comprehend a passage of Primary Two level. Indeed the gaps are also clearly exonerated by the UNESCO report (2010) which says Uganda has the highest dropout rate in East Africa and the lowest proportion of children staying in school up to primary seven.

Anyone who has been to school probably, the report continues knows that it is a lot harder to score zero in any test than to score 100%. And so when a student scores zero which they do anyway, we should ask: were they taught? And if they were taught were they taught the right things? And if they were taught the right things did the person teaching them know what they were teaching? Did the students understand what they were taught? Did someone care to know if the students understood? Did the teachers have the right qualifications? If they did, did they have the relevant teaching materials? And very crucially, is the syllabus relevant or does it alienate both the teacher and the taught? The questions mentioned summarizes the issues that fortunately are addressed by TESSA OER materials.

The context of primary schools in Uganda indeed depict a scenario of big classes amidst limited resources, poor infrastructure, lack of textbooks, lack of classrooms in some instances, even lack of chalk and chalk boards in some schools let alone existence of even one single computer. The teacher in such a school is compelled to use a teacher centered approach, an academic approach, and a lack of real innovativeness on his/her part that would have been stimulated by the use of various resources at his/her disposal. Given such context, the Uganda National Teachers Union organized a national consultative meeting of all member teachers to identify the gaps and proceedings from the UNATO consultative meeting are indicated in the following section

2.2 Gaps Identified During UNATU Consultative Meeting

The Uganda National Teachers Union (UNATU) is obliged to improve access to quality education for all children in Uganda; it also aims at enhancing the professionalism, status and morale of teachers in Uganda and to respond to the social development issues that affect education like HIV and AIDS. In a consultative meeting held in July 2012, issues pertaining to education were discussed. Baluka D. (2012) in her address during the UNATU consultative meeting said education in Uganda is wholly dependent on teachers. Therefore teachers’ contribution is greatly felt: parents have left it all to the teacher.

In fact Baluka continues teachers uphold public trust through providing quality education for all learners. But gaps she identifies are the varied standards between rural and urban schools, and between private and Government Schools, different learning levels, and lack of content coverage. Other members of UNATU, however in the consultative meeting mentioned, lack of instructional materials, poor and negative attitudes of teachers and pupils, pupils laxity,

large numbers in small classes, lack of promotional paths for teachers, indecent working environment, inadequate training for teachers, limited economic resources, and inappropriate training methods. Looking at all those gaps, the authors of this paper note that TESSA OER can indeed reduce all of them if properly utilized.

2.3 What Is TESSA and How Does TESSA OER Close the Gaps That Appear In The Teaching/ Learning Processes in Uganda

Teacher Education in sub-Saharan Africa (TESSA) is a project that focuses on improving teaching and learning at primary level. TESSA has fortunately been introduced already in Uganda to a group of primary teachers. TESSA introduces a rather revolutionary approach, uprooting the teacher centered approach, and introducing a student centered approach. It rotates around the provision of open education resources (OER) that are written in five major areas of Literacy, numeracy science, social studies and life skills, which fit very well within the national curriculum of Uganda. TESSA Study materials are prepared in such a way that even if they are activity based they fit very well in the context of poor infrastructure, limited facilities, and are prepared to utilize greatly the local resources within an area.

The argument in this paper is that despite the varying economic and social status of students and teachers in Africa, TESSA offers them hope in as far as resources for teaching are concerned. All the TESSA materials are open educational resources (OER) and they are free to be used by anyone either online or downloaded and used offline or printed. They can be adapted, modified, or integrated with other materials in any form thus giving them an edge over the usual textbooks found in most of the schools in Uganda as Key resources.

They involve the student teacher in using their classroom experience as a way of learning about teaching. School- based activities are different from traditional activities used in teacher education as they link theory and practice teachers are encouraged to think critically about what is happening in their classrooms. The materials have been adapted to best match local needs, culture and surroundings in a range of national contexts across sub-Saharan Africa and are available in four different languages (Arabic, English, French and Kiswahili).

A close look at the structure of TESSA OER materials demonstrates how TESSA is designed to impart learner centered teaching among teachers and how they address the infrastructural and socio economic constraints in teaching and learning to lead to a change of teaching culture from teacher centered to learner centered approach. TESSA materials preach the utilization of local materials. We have a tendency of looking towards donor support and forgetting the key resources we have at our disposal. For example with the adaptation of TESSA materials, teachers in Primary School in Uganda teach science and mathematics using key resources from the environment. Dissecting an apple used to teach fractions, the apple being dissected into half a quarter etc by a student who brought his/her own apple for the exercise and eats it later demonstrates that you do not need a donor to offer you resources to teach fractions.

TESSA also has a niche towards pupil-centred pedagogies that empower pupils to be creative and critical problem solvers. In fact one of the teachers who had interacted vigorously with TESSA materials commented that the children themselves become a resource. The teachers of science for example, who hitherto had been laboring to identify the characteristics of living and nonliving things, welcomed the TESSA methodology Module 1 Section 1 “classifying living things”. Children are asked to build a family tree as that of resource I for example, and include in it everything the family consists of, and from their listing they are asked to identify living and nonliving things and classify their characteristics. Indeed as comments It is clear

from the accounts of the TESSA) OER users that despite the challenges that may be encountered in the use of TESSA OERs, it is a model that has the potential to reform educational practice through transforming teaching and learning to liberate pupils, encourage creativity, innovation and problem solving.

In fact as Aguti & Bbuye (2011) comment science modules are commended by some tutors for their use of an inquiry-based approach to learning science, their use of examples from daily living and their emphasis on science process skills like observation. In fact following up teachers who use TESSA materials has given different dimensions of how learning become active and cancels the gaps that were identified by the UNATU members, of lack of resources, failure to utilize a variety of methods, passive classes etc. The following experiences of the teachers who use TESSA materials is evidence of some of the ways TESSA addresses Education gaps.

In a lesson meant to teach shapes (Mathematics) “children were grouped, having collected their various shapes for the lesson, they discussed looked and touched the collection of shapes. Pupils were excited, a lot of interactions and discussions, and vigorous participation of the learners took place hence a child centered lesson.” In a lesson on opposites (English), the teacher used “the very examples of sentences constructed by students themselves and they were able to give opposites of verbs. This was done through demonstration/work and songs actually an action oriented lesson especially with a teacher able to identify pupils by their names and keeping them focused.”

Teachers also teach “Appropriate use of verbs, referring to the learner’s immediate class environment” for example one teacher brought a packet of pens, and created verbs and sentences around it. “Investigating measurement and data handling some teachers used the students as resources, using weight of students, height of students, size, engaged children to measure their own size, weight and height and also their sociologist statistics e.g. birthdays, tribes, family size” and later on their graphic skills, such as pie charts, were developed.

“I encouraged children to collect bottle tops, and bottle tops were made to represent raw marks of the students and making graphs made up of bottle tops.” “I made them keep a record of children absent from class each day and develop graphs and later determine each child’s preferred drink, food or sport and make graphs.”

TESSA’s Materials provide for the teacher the opportunity to take a class outside the four walls and create enjoyment among the pupils and learning takes place in a natural environment. Evidence is shown on one class that was focused on classifying living things, a closer look at plants. Pupils went around the school compound, looking at the plants they found. In fact the children went beyond the immediate requirements of the lesson, asked questions, bringing in new material or referring back to previous lessons. As Aguti & Bbuye (2011) point out, one child asked how the insects could get nectar when it was hidden down a narrow tube in the flower set among thorns. The teacher picked up the flower and explained including referring back to what they had studied the previous year about bee’s proboscis.

3.0 Conclusions

TESSA materials go a long way to mitigate the gaps of education system in Uganda. Top among them is the need to ensure teacher pupil contact hour interactions, interpretation of the curriculum, using activity based learning, varying the learning environment and keeping the pupils and tutors motivated so as to enjoy teaching and learning.

TESSA fulfils a principle that teachers argue out and sell out and it is that a key principle of teaching is to make sure everyone is clear on what we are going to do. In so doing TESSA materials aid long term memory of the learners, materials motivates the learners leading to incidental learning” hence the problem that was aired out that children reproduced teachers work, disappear since the students are able to create own knowledge.

The children themselves become a resource, as they discover knowledge on their own despite the limitation of resources. Children become more creative and this unfortunately is hardly provided in the present school curriculum, as it is bent on giving information and not developing competence, unlike TESSA which is more practical. Tessa materials provide a forum for feedback and to reflect on outcome of lesson.

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A Conceptual Model of Civic Education in the Context of Open Immigrant Society



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Abstract

The rise of global migration and the formation of a harmonious, tolerant, and vibrant global multicultural society involve both how new immigrants view their own identity and the extent to which new immigrants are accepted by the spouse's family, local residents, business and labor organizations, government departments and other stakeholders. This paper explores the application of progressive thinking on social education policy as the basis for policy innovation on new immigrant education. The paper uses the example of the Open University of Kaohsiung course on "Open Society and Civic Literacy" to analyze how open educational resources and strategy from across different fields and disciplines are integrated to achieve this purpose. The study found that creative deconstruction and reconstruction of education learning space helped develop civic literacy among students while an educating-city could facilitate open education resources for open global immigrant societies. The paper concludes by advocating a creative collaborative integration of central and local government systems and the effective use of city diplomacy to construct a multi-dimensional and multicultural free learning zone educational support system, with the aim of increasing the actual learning effectiveness of long-distance education for the realization of an open and tolerant society for global migrants.

Keywords: immigrant education, open education resources, open society, collaborative governance.

(Anti-)Globalization and Human Rights Education

Capitalist economic globalization has produced paradoxical phenomena of what Zygmunt Bauman labels “global wealth” and “local poverty,” producing a powerful reaction against globalization (Beck, 2000:31). Do phenomena associated with globalization, such as the cross-border movement of people, the development and reproduction of living space, and the rapid development of media and communication technology point the way towards a more open society or a retreat into a gated society? It is clear that there are practical limitations in the ability of government policy to guarantee certain rights. This also presents a challenge to the open society. In response to the challenges of globalization, the city must provide residents with lifelong learning opportunities, enabling them to develop modern civic skills. These skills have far-reaching significance for the construction of an open and inclusive society and development of a sustainable city.

Facing social developments associated with urbanization and globalization, the development of key civic skills and human rights education must include civic literacy in areas such as democracy, ethics, the media, technology, and aesthetics, in order to prevent formation of a gated society and promote the development of an open society. Democratic literacy can be conceptualized as understanding and participation, consideration and consultation, and respect and inclusiveness. Ethical literacy can be conceptualized as morality, justice, and responsibility. Media literacy can be conceptualized as self-discipline and rational judgment, and finding consensus. Finally, aesthetic literacy can be conceptualized as aesthetic appreciation and open intellect. This paper explores how city governments use cross-border open long-distance learning resources and the principles of lifelong learning to direct teachers and students to consider the issues surrounding the “gated societies” produced by globalization.

“Open Society and Civic Literacy” Courses

This paper uses a series of courses on “Open Society and Civil Literacy” run by Open University of Kaohsiung to explore the possibility of establishing teaching focused on core civic skills at an open university to carry out human rights education. This group of courses has obtained funding from the Ministry of Education, and works with the Kaohsiung City government Human Rights Studio project to deliver innovative human rights education.

Course Framework and Objectives

The course framework is largely constructed around four main dimensions: public rights, gender culture, media information, and living space. The skills necessary for an open society, including awareness of human rights, understanding and acceptance of diverse gender cultures, ability to read and evaluate information contained in the media, and the building of harmonious public space, are taught in multidisciplinary courses on City and Human Rights, Readings on Diverse Genders, Media Literacy, and City Aesthetics. These course designs incorporate learning through service and provide a diverse space for deliberative democracy, incorporating four core civic skills (democratic, ethical, media, and aesthetic literacy) into the course design (see Figure 1).

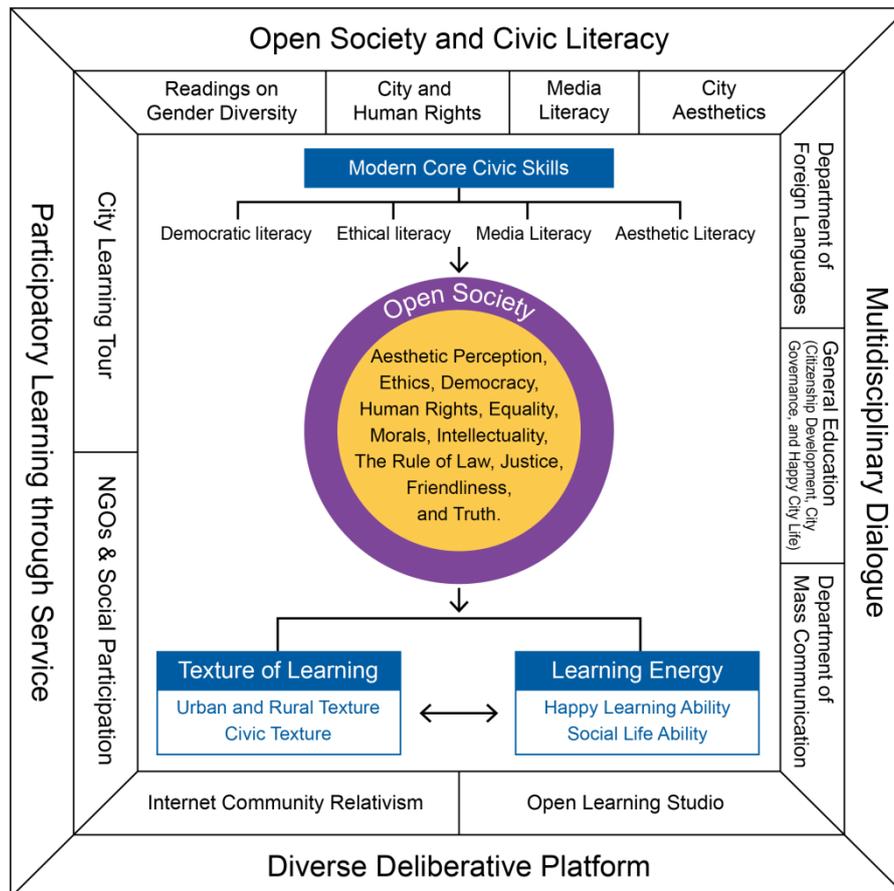


Figure 1: “Open Society and Civic Literacy” Course Framework

The teaching objectives of the course “City and Human Rights” are as follows: 1) Knowledge goals: Students should be articulate basic human rights concepts, the development of city human rights, and the development of international mechanisms for the protection of city human rights; 2) Skills goals: Students should be able to resolve cases related to city human rights issues, and offer knowledge and technical skills to help build protection mechanisms for city human rights issues, to put in place core democratic and ethical civic skills such as consultative deliberation and rational participation; 3) Affective / interpersonal goals: Students can apply democratic, ethnical, and other basic civic literacy acquired in class to interpersonal relations and interaction after class in everyday social life.

Class Dialogue and Cooperation Mechanisms

In order to achieve a cross-boundary dialogue between and the horizontal and linear integration of teaching goals for core civic skills, the cooperation mechanism operates as follows: 1) Group teaching workshop to discuss necessary adjustments and supplementary measures; 2) Team teaching to help to integrate core civic skills taught in each course; 3) Internet dialogue platform to encourage exchange of ideas between different courses; 4) Open learning studio to break free from the standardized class timetable to allows teachers and students on all courses as well as other residents to engage in open learning. The features of the “City and Human Rights” teaching activities are as follows: 1) Let the people decide: The class is divided into small groups to discuss human rights issues and produce policy appraisal reports for submission to city and county governments and assemblies; 2) Electronic deliberative democracy: Encourage students to deliberate and debate human rights issues on

internet message boards, building links for community action among city residents; 3) Community human rights promotion programs: Organize student participation in community human rights service provision or learning activities, collaborating on community human rights projects; 4) Creative human rights work: Encourage students to use the knowledge obtained from study of human rights issues to participate in various human rights creative activities; 5) Training of human rights volunteer guides: Encouraging students to study the city's human rights legacies, and develop human resources skills base to effectively utilize the city's human rights culture and tourism assets.

Assessment of Course Effectiveness

Digital Teaching and Learning

The course adopts a blended learning approach, combining classroom teaching with an online teaching digital platform. The online teaching platform incorporates the Open University of Kaohsiung online learning platform (iLMS) and other courses in the series to integrate educational resources across disciplines. As well as encouraging students to learn through new mediums, this approach provides immediate access to teaching resources and other information, delivering immediate improvements in the quality of teaching and learning. The digitization of course content enables the easy sharing of open educational resources (OER), offering more possibilities for creative teaching, and enabling the sharing of sustainable educational resources among members of society.

The majority of the students prepared for classes and engaged in informal group discussion using the teaching materials provided on the website and various topical issues. Subsequently, students used the online platform to upload written reports and carry out follow-up discussions on the topics presented in class. Most students used the online platform to discuss and debate city human rights issues. However, some students were concerned that the online discussion was too superficial. This feeling might be the result of not understanding the full meaning of what others were trying to express. These students therefore prefer face-to-face classroom discussion. Their enthusiastic participation in classroom discussion matched students who engaged in regular online discussion. On this basis, face-to-face and digital teaching methods can be blended. Although digital teaching can effectively increase teaching quality, we need to be careful when we use it as an indicator for the effectiveness of courses in order to avoid over-reliance on online teaching to achieve rational dialogue and debate between citizens.

Community Links and Problem Solving Abilities

Students are able to carry out city human rights visits and raise points for reflection. In addition, this course is designed to allow students to participate in community service human rights learning activities. This enables students to collaborate with the community and suggest proposals for community human rights services, as well as translating their learning into participation in innovative human rights activities and enjoyment of the city's human rights culture.

Open Society Civic Literacy

The Open University of Kaohsiung is a community university, without any admissions test requirements. It therefore attracts a more diverse range of students than other universities, where admission tests result in a more homogenized student body. The course breaks free from the tradition model of credit institutions and transcends existing observation models of outdoor education. The course uses the Kaohsiung MRT Formosa Boulevard Station Human

Rights Studio open space to create new cross-boundary learning space possibilities, providing a diverse and open learning space for dialogue. It is hoped to provide learners with the opportunity to enter and leave different imagined spaces for dialogue in the city, enabling students taking the class and people from different socioeconomic backgrounds from outside the university to engage in dialogue without boundaries, enhancing student's civic literacy skills.

A total of thirty-one students registered on the course (please see Table 1 for the students' backgrounds). The course used dynamic generational groupings, in order to form a dialogue and consensus building process on human rights between different generations, socioeconomic groups, and professions. This gave the students the understanding and capacity needed in an open society to tolerate different ideas, and enabled them to explore the influence intergenerational dialogues on human rights issues. On the basis of the learning outcomes survey completed by students enrolled in the course, most students showed clear changes in their views on disadvantaged groups, including workers, sexual minorities, and immigrants, as well as issues related to human rights including environmental development, citizens politics, and socioeconomic issues. Overall, through the practice of human rights teaching, this course instilled a more positive and inclusive attitude toward human rights in students (see Table 2).

Table 1: Students background (N = 31)

	Person	Percentage
Gender		
Male	15	48%
Female	16	52%
Others	0	0%
Don't know/refused to answer	0	0%
Age		
"18-19"	1	3%
"20-29"	7	23%
"30-39"	8	26%
"40-49"	4	13%
"50-59"	7	23%
"60-69"	3	9%
"70 or above"	1	3%
Education		
Elementary school	0	0%
Junior high school	3	10%
Senior high school	13	42%
Junior college	10	32%
Bachelor	4	13%
Master or above	0	0%
Don't know/refused to answer	1	3%
Religion		
Buddhism	10	32%
Chinese folk religion	3	10%
Christianity	4	13%
Catholicism	0	0%
Islam	0	0%
None	10	32%
Others	1	3%
Don't know/refused to answer	3	10%

Table 2: Course learning outcomes survey (N = 31)

		Person	Percentage
1. Right to the City			
1-1. Do you agree that all people who live or reside in the city enjoy the same benefits and rights as permanent residents?	1. Strongly agree	6	19%
	2. Agree	20	65%
	3. Disagree	5	16%
	4. Strongly disagree	0	0%
	5. Don't know/refused to answer	0	0%
1-2. Has what you have learned on the course changed your views on the above issue?	1. Changed them a lot	7	23%
	2. Changed them a little	21	68%
	3. Not really changed them	2	6%
	4. Not changed them at all	1	3%
	5. Don't know/refused to answer	0	0%
2. Human Rights for Workers			
2-1. Do you agree that large numbers of dispatched employees should be used to increase the competitiveness of enterprises and reduce the unemployment rate?	1. Strongly agree	5	16%
	2. Agree	7	23%
	3. Disagree	14	45%
	4. Strongly disagree	3	10%
	5. Don't know/refused to answer	2	6%
2-2. Has what you have learned on the course changed your views on the above issue?	1. Changed them a lot	9	29%
	2. Changed them a little	14	45%
	3. Not really changed them	6	19%
	4. Not changed them at all	1	3%
	5. Don't know/refused to answer	1	3%
3. Sexual Diversity and Human Rights			
3-1. Do you support government legislation to protect LGBT family diversity?	1. Strongly support	6	19%
	2. Support	15	48%
	3. Not really support	9	29%
	4. Not support at all	0	0%
	5. Don't know/refused to answer	1	3%
3-2. Has what you have learned on the course changed your views on the above issue?	1. Changed them a lot	10	32%
	2. Changed them a little	14	45%
	3. Not really changed them	6	19%
	4. Not changed them at all	1	3%
	5. Don't know/refused to answer	0	0%
4. New Immigrants and Human Rights			
4-1. Do you support the rights of new immigrants to participate in local elections or referenda after they have lived in the city for a certain period of time, even if they have not yet obtained household registration?	1. Strongly support	10	32%
	2. Support	13	42%
	3. Not really support	7	23%
	4. Not support at all	0	0%
	5. Don't know/refused to answer	1	3%
4-2. Has what you have learned on the course changed your views on the above issue?	1. Changed a lot	8	26%
	2. Changed a little	18	58%
	3. Not really changed	5	16%
	4. Not changed at all	0	0%
	5. Don't know/refused to answer	0	0%
5. The Environment and Development			
5-1. Do you trust the	1. Trust very much	3	10%

environmental impact assessment reports produced by government experts on major environmental controversies?	2. Trust	13	42%
	3. Not trust very much	12	39%
	4. Not trust at all	3	10%
	5. Don't know/refused to answer	0	0%

5-2. Has what you have learned on the course changed your views on the above issue?	1. Changed a lot	8	26%
	2. Changed a little	16	52%
	3. Not really changed	7	23%
	4. Not changed at all	0	0%
	5. Don't know/refused to answer	0	0%

6. Civil and Political Rights

6-1. On the 228 historical controversy, do you support continued pursuit of the truth and inclusion of the details in textbooks?	1. Strongly support	9	29%
	2. Support	17	55%
	3. Not really support	2	6%
	4. Not support at all	0	0%
	5. Don't know/refused to answer	3	10%

6-2. Has what you have learned on the course changed your views on the above issue?	1. Changed a lot	8	26%
	2. Changed a little	16	52%
	3. Not really changed	5	16%
	4. Not changed at all	2	6%
	5. Don't know/refused to answer	0	0%

7. International Politics and Human Rights

7-1. When compared to national security, do you agree that individual human rights and freedoms are not very important?	1. Strongly agree	2	6%
	2. Agree	14	45%
	3. Disagree	12	39%
	4. Strongly disagree	3	10%
	5. Don't know/refused to answer	0	0%

7-2. Has what you have learned on the course changed your views on the above issue?	1. Changed them a lot	11	35%
	2. Changed them a little	13	42%
	3. Not really changed them	6	19%
	4. Not changed them at all	1	3%
	5. Don't know/refused to answer	0	0%

8. E-learning

8-1. How well have you adapted to the e-learning platform used to promote student participation?	1. Adapted very well	11	35%
	2. Adapted fairly well	16	52%
	3. Not really adapted	4	13%
	4. Not adapted at all	0	0%
	5. Don't know/refused to answer	0	0%

The Educating City and the Development of Citizens' Human Rights Literacy

Regardless of differences between countries in civic education curriculums, the development of participation-oriented civic education has become an increasing priority in many countries. However, most countries recognize that there is still no objective and standardized measure of the effectiveness of non-theoretical learning delivered by civic education programs. Establishing universal principles for civic education is a major challenge, which some countries have tried to address through new civic education programs or methods (Eurydice European Unit, 2005). This paper uses educational courses on human rights at the Open University of Kaohsiung, a social education university in Taiwan, as its case study. It explores how to develop the educating city and use open public space in the mass transit system to create a framework of interdisciplinary courses on human rights that build the modern core civic skills and literacy required for an open society. Regarding the implications of innovative human rights education based on the principles of the open society for the development of core civic skills and literacy, this paper proposes the following conclusions:

The Power Deconstruction and Reconstruction of Learning Spaces

The possibility of the power deconstruction and reconstruction of urban learning spaces in an open society is dependent on the activation of the potentials of the educating city (IACE, 2001). An example of such reconstruction of space is the innovative transformation of space on public space on the Kaohsiung metro system into a space for education and the transfer of knowledge. This paper explores the practice of human rights education, transcending the traditional ideas of institution-based education and current approaches to outdoor education, using open public space linked to the Kaohsiung MRT Formosa Boulevard Station Human Rights Learning Studio to create the possibility of a new cross-border and cross-domain learning space. The use of public open space enables learners (including registered students, non-registered city residents, and passing commuters) to freely join and leave an imagined community based on different themes and conversations. In order to implement the concept of the "Human Rights City," the Kaohsiung City Government Human Rights Commission authorized the Open University of Kaohsiung to establish a "Human Rights Learning Studio" at the Kaohsiung MRT Formosa Boulevard Station, providing information on human rights history and assimilating human rights ideals into the everyday lives of the people. The Human Rights Studio is located in city public space, making full use of a mass transit transfer station, providing unlimited open human rights learning, committing to transforming Formosa Boulevard MRT station into a "transfer station for human rights knowledge and values," and producing a harmonious society that ensures human dignity and mutual tolerance, protecting and advancing human rights.

The Creation of a Model of Dialogue and Voluntary Consensus Based on Human Rights Understanding

Amartya Sen points out that the relationship between globalization and choice need not be conflicted. This means that as more opportunities are opened up, the choices of each individual should be accepted by the community. From this perspective, it becomes easier to understand the complex relationship between local and national culture on the one hand, and globalization on the other (China Times, 1999a:3; 1999b:3). In contrast to the homogenized system based on enrollment according to test scores found in traditional universities, this

course makes use of the unique character of the student body at a social education university.¹ For instance, in the classroom, students can be divided into different groups, enabling learning between students from different generations and socioeconomic background, with varying educational attainments and workplace experience to engage in dynamic discussion on various human rights topics, enabling students to gain a new understanding of the open society and learn from the ideas of others. This method of teaching enables links to be drawn between human rights dialogues in each generation and individual attitudes towards human rights issues.

The Building of New Citizenship Rights for the Open Society and Learning Core Civic Skills

Different understandings of human rights form the basis harmonious social interactions based on healthy civil society values and attitudes (Pillay, 2008). A culture of human rights is an expression of human rights awareness at the individual level. It reflects an awareness of the rights of citizens that transcends the political gated society and an acceptance of comprehensive human rights and respect for human dignity for all and without discrimination (rather than something bequeathed). An acceptance of the rights of citizens in an open society forms the very foundation of the universal human rights values. The course explores emerging human rights issues through a program of blended learning, combining class and online teaching through a digital platform for wide ranging discussion. The course uses a constant process of “contact - collision - deconstruction - construction - collision - deconstruction – reconstruction” to explore students' existing beliefs, and looks out whether and how beliefs and actions change in the human rights learning process.

Conclusion

From the educating city perspective, cities should establish a more open system of lifelong learning and social education, providing the city’s new immigrants and the local population opportunities to learn together, so that all residents benefit from enhanced quality of life, workplace competitiveness, and recognition of self-worth. Under this way of thinking, building a network of multicultural learning should proceed on the basis of innovative cooperative governance. This model of governance should bring together the institutional functions of central and local government, providing a more flexible policy framework for the protection of multicultural rights. The model involves respect for individual rights as immigrants move into the city and a cooperative community spirit allowing creative institutional cooperation, including alliances between local governments and cooperation between local governments and the private sector and civil society.

The formation of a harmonious, tolerant, and vibrant global multicultural society involve both how residents view their own identity and the extent to which residents are accepted by their families, other local residents, business and labor organizations, government departments and other stakeholders. This paper explores the application of progressive thinking on social education policy as the basis for policy innovation on new open education resources. The paper uses the example of the Open University of Kaohsiung course on “Open Society and Civic Literacy” to analyze how open educational resources and strategy from across different fields (Kaohsiung MRT Corporation, Open University of Kaohsiung,

¹ In accordance with Taiwan’s law, citizens at least 18 years of age shall have access to open universities regardless of educational qualifications and without any admissions test requirements.

Kaohsiung City Government, Ministry of Education, and Civil Society/Groups) and disciplines are integrated to achieve this purpose. The study found that creative deconstruction and reconstruction of education learning space helped develop civic literacy among students while an educating-city could facilitate open education resources for open global immigrant societies. The paper concludes by advocating a creative collaborative integration of central and local government systems to construct a multi-dimensional and multicultural free learning zone educational support system, with the aim of increasing the actual learning effectiveness of long-distance education for the realization of an open and tolerant society.

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Development of a Multicultural Curriculum for Primary School Students in Yala Province

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Abstract

This study aimed 1) to develop a multicultural curriculum for primary school students in Yala Province and 2) to investigate efficacy of the curriculum which had been developed by using quantitative research and participatory action research. The sampling group consisted of three school administrators, 16 teachers, and 32 students. The research instruments were 1) a questionnaire for stakeholders who were involved in curriculum development 2) a questionnaire for administrators, teachers, and students 3) a curriculum efficacy evaluation form 4) an evaluation form to assess teachers' knowledge and skills in curriculum development 5) teachers and administrators curriculum development participation observation form.

The study results revealed that (1) after analysing background information from stakeholders in the community in terms of needs and content of multicultural curriculum, it was agreed that multicultural content should be integrated in the social studies subject, religion and culture learning units. The stakeholders helped identify desirable content, including local wisdom, in the learning units for primary school students. The feedbacks from the community stakeholders along with multicultural education theories were synthesised to develop a multicultural curriculum for primary school students in Yala. The curriculum structure consisted of 1) background and significance of the curriculum 2) curriculum objectives 3) curriculum content and learning outcomes 4) course description 5) leaning units which were the Miracle of Betong in the Mist, Colorful Blossoms, Magnificent Traditions, and Culture for Good Citizens. The curriculum was tested by experts and was found highly relevant and suitable. (2) In terms of the efficacy of the curriculum, it was found that students had a better understanding in multicultural society and they accepted cultural differences better after participating in the multicultural curriculum. Students also strongly agreed with the implementation of multicultural curriculum in all aspects including content, learning activities, materials, learning sources, assessment, and evaluation. The study also revealed that students had positive attitudes towards multicultural education. Teachers' self-assessment evaluation showed that teachers had a high level of knowledge and skills in curriculum development. They also strongly agreed that school administrators and teachers must get involved in every step of curriculum development.

Key words: multi-cultural curriculum, Primary level, Yala province

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Background and Significance of the Study

Education is an important tool to develop human resource capacities in a holistic process of body, mind, and intellect. Education should be defined as development which is greater than knowledge or intellect. Educational management must take into consideration other dimensions of human beings especially morality and social values. Education should, therefore, provide both academic knowledge and moral foundation as His Majesty the King Bhumibol Adulyadej addressed to a group of teachers and students at Dusidalai Hall on 27th July 1981 that “Education is a factor to create and develop knowledge, thoughts, behaviours, and morality. A society and a country that provides good education to its children and young people appropriately in every dimension will acquire high quality citizens who will, then, retain the country’s prosperity and security and will contribute to the country’s development....” (Office of H.M. Principal Private Secretary, 1982)

Education is an important factor to the development of a country. Education quality development is a crucial mechanism to propel the country from critical circumstances. Education quality development can be done by promoting local knowledge, cherishing local wisdom and Thainess, promoting religions, arts, languages, and cultures of the nation, and promoting cultures of students from various backgrounds and an understanding of cultural differences, or, in other words, multicultural education. Multicultural education has been a topic of discussion as a result of a demand for the rights of the minority groups to be recognised and the need to learn to live together in a multicultural society in which values, beliefs, and attitudes need to be reshaped through various levels of educational processes as noted by Prawet Wasi (2004) that “If culture is valued, every community in the country will have equal honour and dignity. No culture has a higher status than the others. No culture is a centre of the others. Honour and dignity will be equally spread. Doors of diversity will be opened. Local communities will then be strong and sustainable.”

Multiculturalism promotes the idea that the society is made up of people from different lifestyles who speak different languages with different faiths, cultures, and perspectives. A multicultural curriculum promotes positive attitudes towards diversity. It embraces an individual as being part of the society with values, friendliness, and respect to those who are different.

Yala province is the southernmost province of Thailand. Yala is the only land-locked province in the south. It is renowned for its stunning town planning. The population of Yala consists of people from three main ethnic groups- Muslim, Thai, and Chinese. Betong is the southernmost district of Yala. It is a gateway to Malaysia. Betong is famous for its beautiful landscape of mountain range and valleys. People in Betong are from diverse backgrounds. 51% of the population is from a Muslim Thai background, 47% is from Chinese and Buddhist Thai backgrounds, and 2% is Christian and Hindu. Diversity in Betong has created uniqueness of cultural integration. Cultural, religious, and traditional diversity in the district has strengthened the prosperity of the community. Betong unique cultural identity has been reflected through everyday activities of its people, language, food, clothing, occupation, and architecture. The community’s beliefs, faiths, and values are embedded in the people’s ways of life; for example, the Chinese Thais tend to speak local dialects with different accents, Yawee dialect is used in the Muslim Thai community, most people prefer central Thai language to the southern dialect, and chopsticks are widely used across different ethnic groups.

As a result, Betong had drawn an attention to this study for the need to develop a multicultural curriculum for schools in Betong. The study aimed to collect multicultural content from the community, integrate the content in the classroom and promote positive

impacts of multicultural education. As Betong is a very diverse society, multicultural curriculum is essential for every school. Students need to be aware of differences in culture, language, and lifestyle. They need to develop a positive attitude towards others and to value and respect others from different backgrounds. For the best results, schools need clear guidelines to develop and implement a multicultural curriculum. This study, therefore, aimed to develop a multicultural curriculum as guidelines for schools which provide basic education in accordance with the National Education Act of B.E. 2542 (1999), section 27, paragraph 2, which states that “basic education institutions shall be responsible for prescribing curricular substance relating to the needs of the community and the society, local wisdom and attributes of desirable members of family, community, society, and nation.” This study also aimed to facilitate teachers to develop their own curriculum which, according to the results of this study, reflected better engagement of students and the community in the hope that local knowledge and understanding of multiculturalism along with universal knowledge will create a peaceful society and will bring harmony to the country.

Research Objectives

1. To develop a multicultural curriculum for primary schools in Yala
2. To study efficacy of the curriculum which has been developed

Scope of the Study

The scope of this study included

1. Population of the study consisted of 306 teachers and students in Thairathwittaya 94 School (Ban Bor Nam Ron), residents of Ban Bor Nam Ron community, Betong, Yala including a hamlet leader, village chief, chief of the police station, chief administrator of the subdistrict administrative organisation, head of the health station, the community wise persons, and an imam.
2. A sampling group was chosen by a purposive sampling method as follows
 - 2.1 The sampling group from Thairathwittaya 94 School consisted of the school director, two school deputy directors, 16 teachers, and 32 Pratom 5 students
 - 2.2 A chief of Ta Noh Mae Roh village, Moo 2 hamlet leader, a chief of the Ta Noh Mae Roh police station, a chief administrator of the Ta Noh Mae Roh subdistrict administrative organisation, a head of the health station, 4 school committee members, 3 parents, 6 wise persons, and an imam

Expected Outcome of the Study

1. Education management stake holders, especially in the primary education, will be able to use this study to develop a multicultural curriculum in accordance with capacity and needs of the community and the school
2. The results of the study will give guidelines to schools and other organisations in the community to promote community engagement in developing and implement a multicultural curriculum in school.

Research Methodology

Research methodology used in the study was quantitative research and participatory action research which aimed to develop a multicultural curriculum for primary school students in Yala and to study the efficacy of the curriculum. The details of research methods were as follows;

1. To develop a multicultural curriculum for primary school students in Yala, the research methodology included
 - 1.1 Background information was researched and analysed in four steps 1) to identify problems and needs of the community 2) to identify problems and needs of the school 3) to identify needs of the school and community in curriculum development 4) to identify curriculum content
 - 1.2 A multicultural curriculum for primary school students in Yala was drafted. The curriculum was designed in accordance with problems and needs of Bor Nam Ron community and Thairathwittaya 94 School. The steps were 1) the multicultural curriculum for primary school students was drafted. 2) After that, the curriculum was inspected. 3) The curriculum was revised and tested.
2. To study efficacy of the curriculum, the research methodology included
 - 2.1 The curriculum was tested with the sampling group of Pratom 5 students in Thairathwittaya 94 School to study efficacy of the curriculum.
 - 2.2 The curriculum was evaluated and revised. The results from the sampling group were compared to the standard indicators. Then, the curriculum was revised until it was appropriate, complete, and ready to be implemented in the community.

Research Results

1. The results of the development of a multicultural curriculum in a primary school in Yala After studying the capacity and the needs to develop a multicultural curriculum for primary school students in Yala, it was found that 1) in terms of circumstances and problems of the community, Thairathwittaya 94 School is situated in Ta Noh Mae Roh village. The name of the village comes from Malay which means red soil. The residents of the villages are divided into three groups; Buddhist Thais, Muslim Thais, and Chinese Thais whose descendants originally migrated from China. The community has a good economy. The culture and traditions of the community are well preserved. The residents are willing to protect and preserve their traditions. However, the community does not receive good infrastructure and health care. 2) When considering the circumstances and problems of the school, Thairathwittaya 94 School provides pre-school, primary, and lower secondary education. Most teachers are local. Teachers delivered their teaching by using various student-centred teaching and learning methods. The teachers had been trained to develop a local curriculum but had never designed one. The teachers had good team work. Most teachers were assigned to teach subjects according to their qualifications. Students have moderate academic achievement. 3) In terms of the needs to develop a multicultural curriculum of the school and community, the school and community wanted to integrate the content about the traditions that have been passed on from their ancestors. The traditions included Chinese traditions such as an ancestor worship festival, a vegetarian festival, a ghosts and spirits festival, a moon festival, and a dragon boat festival, Muslim traditions such as circumcision ceremony, hajj, prophet Muhammad's birthday (Eid), Ramadan, Ashure pudding festival, Anaset folk songs, and Pencak Silat martial arts, and Buddhist traditions such as Southern Thai ancestor worship festival, Songkran festival, and Buddhist festivals. 4) According the capacity and needs analysis of the school and community, the content of the curriculum should include four topics which are natural beauty, ways of life, traditions, and culture. The above background information was analysed and used to develop a following multicultural curriculum.

A Multicultural Curriculum for Primary School Students in Yala Concept

Integrating the content of the local ways of life, beliefs, traditions, and culture in the curriculum will promote understanding, accessibility and development in a multicultural society, build pride of local wisdom, reduce social conflicts, strengthen family and community development, and bridge cultural divisions.

Education is an important factor to the development of a country. Education quality development is a crucial mechanism to propel the country from critical circumstances. Students should be encouraged to learn from the critical circumstances. Students should be encouraged to learn about their own community to realise the values of local wisdom, religion, arts, language, and culture. Students should also be taught to understand cultural differences and multiculturalism.

Multiculturalism promotes the idea that the society is made up of people from different lifestyles who speak different languages with different faiths, cultures, and perspectives. A multicultural curriculum promotes positive attitudes towards diversity. It embraces an individual as being part of the society with values, friendliness, and respect to those who are different.

Several factors such as gender, race, social class, religion, and talent affect students' learning behaviours and are to be considered in developing a multicultural curriculum. These factors were taken into account when the curriculum was developed.

Objectives of the curriculum

To develop knowledge, understanding, and accessibility and to promote positive attitudes towards local traditions, ways of life, social activities, language, culture, geographical features, and economy

Curriculum Structure

The curriculum is divided into four units as follows;

Unit	Content
1. The Miracle of Betong in the Mist (10 hours)	History, Geography, Weather and Climate, Population and lifestyle
2. Colorful blossoms (10 hours)	Buddhist Thai ways of life Muslim Thai ways of life Chinese Thai ways of life Christian Thai ways of life
3. Magnificent traditions (10 hours)	a vegetarian festival, a dragon boat festival Ramadan, Southern Thai ancestor worship festival, Songkran festival, Ashure pudding festival
4. Culture for Good Citizens (10 hours)	Culture of language, food, clothes, ways of life

Learning Management

Student-centred learning management was used to deliver the content of the curriculum. Learning activities included group work, self-directed learning, action learning, learning sources and local wisdom. Students were encouraged to be independent. Teachers facilitated and advised students.

Teaching and learning materials

Various authentic materials were used as teaching and learning materials. They gave students meaningful experience and made classroom activities more interesting as well as encouraged students to be self-directed by using materials like worksheet, information sheet, activity sheet, pictures, or articles about current issues.

Assessment and Evaluation

Goals of the assessment and evaluation (1) to assess students while participating in an activity of the learning unit by observation and from their activity sheets. The information was used to see whether students met the unit objectives. (2) to evaluate the multicultural curriculum after the activities for every learning unit had been delivered. A values and benefits of the curriculum evaluation form were distributed to students. Students rated the curriculum as having moderate to high efficiency.

2. Multicultural curriculum efficacy evaluation The efficacy evaluation was done by 1) considering students' development before and after using the curriculum. It was found that students had average growth scores of 5.24 and students strongly agreed with the use of multicultural curriculum in all aspects including content, learning activities, materials, and evaluation 2) considering teachers' self-assessment of their knowledge and skills in curriculum development, it was shown that teachers had high levels of knowledge and skills in curriculum development at the average scores of 4.50. Teachers also strongly agreed with the need for curriculum development at the average scores of 4.50. Teachers and administrators willingly participated in every step of the curriculum development. Students also showed positive attitudes towards the multicultural education.

Suggestions

1. Suggestions how to implement this research study

- 1) Teachers should study the curriculum and learning units handbook in details and do some more research from other learning sources.
- 2) The duration of each lesson and unit can be flexible. Some student self-directed activities such as interviewing a wise person in the community can be assigned in advance and a follow-up report and presentation can be done in the classroom.
- 3) Some field studies such as a field trip may have to be done during a holiday and presentation can be done outside the classroom hours.

2. Suggestions for a further study

- 1) A multicultural curriculum development training course for administrators is recommended. Awareness of multiculturalism and engagement of administrators can create a more efficient multicultural curriculum for the school to become a leader in educational development.

2) A research study on community engagement in educational management as stated in the National Education Act of B.E. 2542 (1999) is recommended. Community engagement entails collaboration from individuals, families, community, community organisations, local administrative organisations, private sector, businesses, professional organisations, religious institutions, and social organisations.

3) There should be a research study about the effects of multicultural curriculum on community, schools, administrators, teachers, and other stake holders and whether the outcomes of the curriculum implementation have achieved the objectives of the curriculum.

4) Teachers should be trained to have knowledge and skills to use research methodology to develop a curriculum. The research results can be used to improve the teaching and learning management.

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Implementing Digital Object Identifier (DOI) in Thai Research Organizations



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Abstract

Thai Research publications need to be managed by global solutions which is the Digital Object Identifier (DOI) system that provides the persistent identification of research data publications and datasets. The purpose of this paper is to discuss the collaboration of research organizations in implementing DOI for Thai research publications and the role NRCT plays in building the infrastructure of the DOI system for Thai Research Publications. The National Research Council of Thailand (NRCT) as an allocation agency of DOI prefix for the data centers and repositories is a member of DataCite. Questions raised by this project include: What does the academic community benefit from the DOI system? How can research organizations apply DOI for their research publications? Why NRCT plays an important role in the DOI system? How could NRCT implement the Thai research publications in the DOI system? What technologies are applied in the DOI system? How do Thai Research Organizations prepare the technical infrastructure of DOI implementation? There is no doubt that the collaboration for standards of data centers or repositories and appropriate training are needed for Thai research organizations.

Keywords: Digital Object Identifier, Thai Research publications.

Introduction

The research data collaboration by DataCite International Consortium enables research organizations to register research dataset and to assign persistent identifier which is called Digital Object Identifier (DOI). The objectives of DataCite are to promote the use of permanent identifiers in research organizations and institutions of higher education to enable the registration of DOIs and to make research data publicly, permanently available and citable on the Internet. The DataCite Consortium provides three services to support efforts by increasing the ease and prevalence of data citation such as the Metadata Store, the Metadata Search, and the Open Archives Initiative (OAI) Provider. DataCite therefore works with data centers or repositories to assign persistent identifiers to research datasets using DOI. Nowadays over 55 million DOI names by DataCite have been assigned by DOI System Registration Agencies. DataCite is the Registration Agency (RA) of DOI that has the members as followed: The British Library, United Kingdom, L'Institut de l'Information Scientifique et Technique (INIST), France, Technical Information Center of Denmark, Denmark, TU Delft Library, The Netherlands, Canada Institute for Scientific and Technical Information (CISTI), Canada , California Digital Library, USA, Australian National Data Service (ANDS), Australia, Purdue University, USA , ETH Zurich, Switzerland, German National Library of Science and Technology (TIB), Germany, German National Library of Medicine (ZB MED), Germany, GESIS - Leibniz Institute for Social Science, Germany, German National Library of Economics (ZBW), Germany, Swedish National Data Service (SND), Sweden, Office of Scientific and Technical Information (OSTI), US Department of Energy (DOE), USA, and National Research Council of Thailand(NRCT), Thailand.

The National Research Council of Thailand (NRCT) has been approved as a member of DataCite in December 2012 as an allocation agency of DOI prefix for the research data repositories. DOI (Digital Object Identifier) may be known as the 21st Century ISBN. A 'digital object' in the electronic form of a whole book or journal, or an individual issue, chapter or article can also be identified by DOI. A DOI consists of a publisher ID (which can be the research organization, the library, the institution) (prefix) and an item ID (suffix), separated by a forward slash. The importance of Digital Object Identifier (DOI) as persistent identifier used for citing and linking resources that are widely used in scientific publishing to cite journal articles.

I. Issues

Thai Research data can be accessible from various research databases and research center websites such as the library databases, the academic institutions, the project of Research Indexing Hub as the activity to support Thai National Research Database (NRDB) in the Vijai.net database by National Research Council of Thailand (NRCT) and ThaiLIS database in the Thai Library Integrated System. The journal systems used by Thai research organizations are Open Journal Systems, an open source journal management, which provides full text research articles on the Internet, for example: Thai Journal of Agricultural Science (<http://www.thaiagj.org/>) and many in-house systems with different standards. How can research data users easily access to the research data online and how to manage research data for long term use are the global issues to develop the national research data services. For example, Australia established the Australia National Data Services (ANDS) in building the Australian Research Data Commons: a cohesive collection of research resources from all research institutions, to make better use of Australia's research data outputs. Swedish National Data (SND) is a service organisation for Swedish research within the humanities,

social sciences and health sciences. SND, which is the Swedish node in an international network of data archives), enables Swedish and international researchers gain access to existing data within and outside of Sweden. This SND tool supports the global initiative which addresses the problems of how to find, access, and re-use the result of research and to ensure persistent access to our data by making it easier to update the location of the data, to improve data visibility, to provide persistent links for use in published articles, presentations, websites, to provide proof of research impact by allowing the tracking of data citations and other impact measurements.

NRCT has experiences in working with research network to establish the repository committee to develop research databases and has to move forwards with other research organizations as part of DataCite Consortium. Therefore, the criteria to apply DOI for Thai research publications is the main issue for consideration. The major challenge for Thai Research publications is the need to develop the Thai National Research Database by using the global solution such as: Digital Object Identifier by;

1. Designing the research data management policy for deposit research data.
2. Setting up the working groups for research metadata registries and research repositories.
3. Joining the DOI Thailand community to develop the Thai Research Data Index.

II. The Implementation Plan for DOI system

The Digital Object Identifier Architecture defines four primary components: the social infrastructure, an identifier system, metadata registries, and digital object repositories. The social infrastructure is the initial stage in staff training, establishing a policy, investing into documentation systems and sharing technical infrastructure in a federation of registration agencies. NRCT as an allocation agency will provide services to research organizations for linking reference citations in research articles or papers based on DOI- identified articles. The DOI system brings together: DOI names, Resolution, Metadata registries, and Repository.

1. DOI Name or Syntax: All DOI numbers for digital objects begin with a *10* and contain a prefix and a suffix separated by a slash. The prefix is a unique number of four or more digits assigned to organizations; the suffix is assigned by the publisher and was designed to be flexible with publisher identification standards. Example DOIs for datasets: *doi:10.4232/1.10079* -or- *doi:10.1594/WDCC/dphase_mpeps*. For example, the DOI name for research articles:

Meeting Thailand: Tourism, Scientific Research and Development

Maurizio Mussoni, Laura Vici

DOI: [10.6092/issn.2036-5195/2034](https://doi.org/10.6092/issn.2036-5195/2034)

Full Text: [PDF](#)



2. Resolution: Resolution is the process of submitting a specific DOI name to the DOI system and receiving in return the associated values held in the DOI resolution record for the types of data relating to the object identified by that DOI name. The initial implementation of DOI system was that of persistent naming: a single redirecting from a DOI name to a digital location (URL) of the entity.

The Handle System is the resolution component used in the DOI system, is a general-purpose distributed information system designed to provide an efficient, extensible, and a secured global name service for use on the internet networks. The Handle System is also an open set of protocols, a namespace, and a reference implementation of the protocols. The DOI system is one implementation of the Handle System, a DOI name is a Handle. DOI names are distinguished from other handles by additional metadata and policy. The Handle System is part of a wider Digital Object Architecture that deals with digital objects identifiers (Handles).

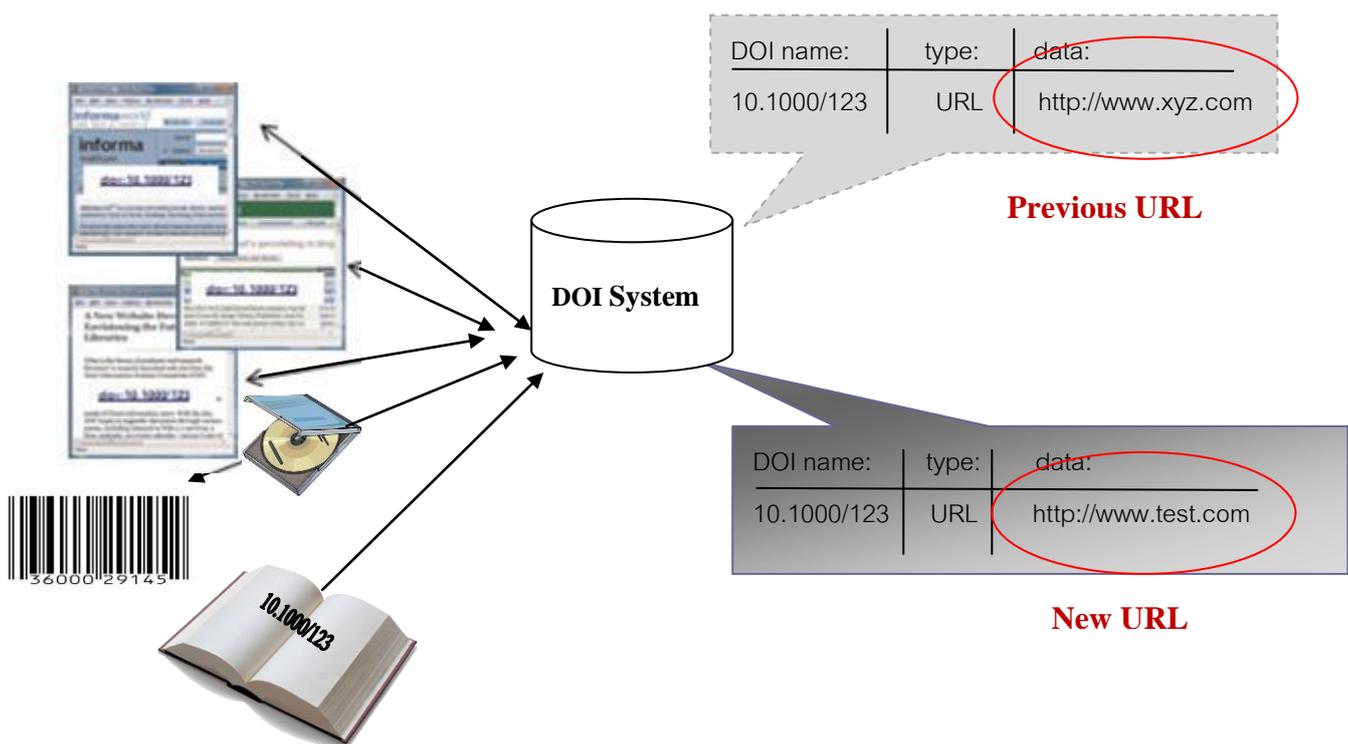


Figure 1 The resolution from URL to DOI System

3. The mandatory metadata elements for each data set: Producing good documentation and metadata (data about data) provides context for tracking its provenance, thus making it easier to find and use data in the long run, as well as making it accessible to others via the internet. Documentation and metadata requirements should be identified from

the start of the project. All registered data must include the mandatory metadata elements such as:

DOI - When combined, the DOI prefix and suffix must uniquely identify the resource.

URL - The URL for the landing page of the resource.

Title - A name or title by which a resource is known.

Creators - The main researchers involved in producing the data, or the authors of the publication, in priority order.

Publisher - The entity that holds, archives, publishes, prints, distributes, releases, issues, or produces the resource. The metadata element will be used to formulate the citation.

Publication Year - The year when the data was or will be made publicly available.

4. Research data repositories or data centers : Corporation for National Research Initiatives (CNRI) has developed a new version of its Digital Object (DO) Repository Software, known as the DO Repository. This Digital Object Architecture provides a mechanism for the creation of, and access to, digital objects as discrete data structures with unique, resolvable identifiers. These Digital Objects provide a foundation for representing and interacting with information on the Internet. For long term data deposit in Research data repositories or data centers in digital preservation and repositories, there are the standards for 'Trusted Digital Repositories' (TDRs), including formal audit processes that begins with self - assessment on the Data Seal of Approval (DSA), and ends with an external audit on the new standard ISO16363.

Research data repositories and infrastructures for the permanent access to research data will focus on the current development of the re3data.org registry as well as on institutional and disciplinary strategies of research data management. The Memorandum of Understanding DataCite and re3data.org define their efforts to enhance accessibility and better visibility of research data. The re3data.org minimum requirements was published in the registry. (<http://www.re3data.org/>)

III. Technology Infrastructure for DOI Registration Service.

Technology infrastructure comprises of the components of DOI system and the technical infrastructure of DOI implementation as the following:-

1. The components of DOI Registration Service. In order to be NRCT DOI registration service, NRCT must deal with the handle system or DOI directory and DOI Metadata as followed:

DOI Directory: The DOI Directory is a virtual service consisting of handle services and web proxies located and configured to provide highly reliable handle resolution,

administration, and backup for all DOI names, regardless of the varying administrative arrangements of the Registration Agencies. **The Handle System:** The International DOI Foundation's implementation of handles, the DOI[®] System, has more than 83 million registered handles. The Handle System infrastructure is supported by prefix registration and service fees. The majority of those fees come from single prefix holders, while the largest single contributor is the International DOI Foundation. The Handle System, developed by Corporation for National Research Initiatives is an infrastructure on which applications serving many different purposes have been built. The objects that are identified by handles are journal articles, technical reports, books, theses and dissertations, government documents, metadata, distributed learning content, and data sets.

DOI Metadata: DOI is of no value without related metadata describing what it is that is being identified. The DOI metadata has two aspects:- one is the DOI standard mandates a particular minimum set of metadata (the "Kernel" metadata) to describe the referent of a DOI name, supported by an XML Schema; another is for interoperability, a **Data Dictionary** or ontology of all terms used in the Kernel controlled vocabularies open lists, and supports a mapping tool called the Vocabulary Mapping Framework

The Components of DOI Registration Service is demonstrated on a picture below.

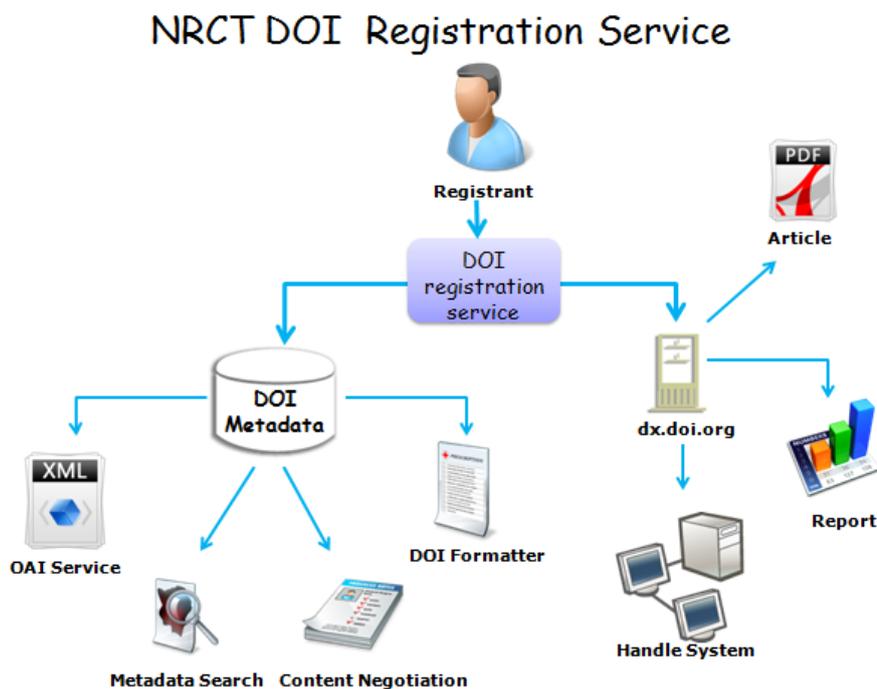


Figure 2 The Components of NRCT DOI Registration Service

2. The technical infrastructure of DOI implementation.

A challenge in developing the application is that data in the system must be stable, secured, and complete. Hence, the National Research Council of Thailand has determined on this application and planned for basic service provided. Application software developed for storing, utilizing, and sharing must be a high quality tool to process data with standard feature. DOI application can be designed to achieve a suitable feature utilizing best practice of Linked Data which is a prominent concept relating to tool for access to data with qualification of identifying a content based on HTTP protocol.

The National Research Council of Thailand has developed the registration system for units requiring their own digital resources registered in order to obtain DOI Names. In the near future, the application called Metadata Store (mds) is planned to develop for working as DOI Registration Service that is more suitable for domestic units in Thailand. When DOI Name is registered in the system, the data will be delivered to the systems as the following:

1. Internet Resolution Service is service integrated with Handle System for registration of DOI Name, for task of DOI Name registration, storing data and then providing URL of digital document by identifying from DOI Name or searching data from it. As data with registered DOI Name is retrieved, the traffic of data usage will be kept and demonstrated in statistics and report.
2. DOI Metadata Database is for storing data in standard feature of this database. According to data storing in the DOI Metadata Database, Registration Agency

also

provides various services for users as shown below.

- 2.1 Metadata Search: for searching interested data in the database
- 2.2 OAI Provider Service: for harvesting metadata of DOI registered via DataCite on Protocols named OAI-PMH
- 2.3 Content Negotiation: linking service for access to the data required through metadata.
- 2.4 DOI Formatter: identifying service for variety of academic works
- 2.5 Cross Linking Service: for example, ONIX, system for selling and purchasing online digital document using technology called Vocabulary Mapping Framework.

Conclusion

NRCT as an allocation agency of research data for DOI in Thailand is in the early stage of implementing DOI in Thai research organizations. The social infrastructure in preparing the collaboration policy and metadata standards for data centers or repositories and data center training are needed for Thai research organizations. The follow-up step comes into play if most research projects follow the data management plan, that is, to register the DOI for their research articles. Setting up a NRCT DOI working group with the research organizations and the journal publishers can also support the research community in developing the central Thai research index by using Digital Object Identifiers for data citation and curation. Then the storage and complete linkage of Thai research database will contribute to develop the Thai knowledge economy within the ASEAN community.

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Teachers Education in Brazil: Biographies, Power and Emancipation



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Abstract

This paper explores current challenges for the initial education of primary school teachers in Brazil. It draws from data collected over the last ten years by the research group “Teachers training: pedagogical processes and practices”. The paper focuses, more specifically, on the education of teachers who work with disadvantaged young people in the peripheries, such as the municipalities around the city of Rio de Janeiro. The methodology is based on a qualitative and biographical approach, valuing teachers’ own narratives and unique experiences in the constructions of knowledge. Research participants were young teachers still studying or recently graduated from the undergraduate course of Pedagogy. Data was collected through interviews and methods aimed at releasing personal narratives, such as journals and photographic collections. Findings show on a macro level, that educational policies, inspired by managerial principles, have transformed the work of new teachers, driving practices targeted at global standards and personal assessment criteria. On a meso level, local educational authorities have provided unstable basis for the initiation of young professionals. Low salaries, unsuitable working conditions and curriculum reforms have demotivated teachers and hindered the education of disadvantaged children. On a micro level, the narratives show that, despite the obstacles, teachers believe in their power to produce emancipatory practices and new ways of thinking and doing education. In conclusion, the study argues that, if we are to retain promising teachers in low-income schools, there is an urgent need to align local and national political agendas to improve teachers’ working conditions, salary and in service education.

Key words: Initial teachers training. Biographical research. Brazil

Introduction

Teachers training is a very important attribution for individuals, professionals and society. Our institution, Faculdade de Formação de Professores da UERJ (FFP/UERJ)/ Faculty of Teachers Training, University of the State of Rio de Janeiro, is entirely dedicated to educate teachers in the following areas: Education, Portuguese/Literature, English,

Geography, Mathematics, History and Science. The research group “Teachers training: pedagogical processes and practices”, responsible for the investigation here presented, is certified by the National Research Council (CNPq), in Brazil. It is composed by eight professors and several undergraduate and graduate students, who are interested in teaching as a profession as a main research topic. For the present communication, we will focus on the theme of education of teachers who work with disadvantaged young people in the peripheries of power, such as the municipalities around the city of Rio de Janeiro.

Dialoguing with Morin (2003), we propose a translation of instituting processes into instituting experiences. For this author, an instituting experience affirms itself as a common experience shared by a group, opposed, in this way, to the institutionalized experience, specific and fragmented by individuals isolated from their peers. The instituting experience promotes full experiences built by a collective action and by the possibility of a polyphonic opening to the world's movements. To reveal instituted practices, we talk about established order, values, views and forms of representation, while the institutionalized refers to the idea of innovation, change, transformation, stressing the non-linearity of teachers' choices, coupled with the prospects of complexity, admitting a plurality of practices.

Morin (2005) states that a system is a relation between parts, that can be different or similar, and constitutes a whole that is at the same time organized, organizing and organizer. He argues that the whole is more than the sum of parts, as it adds new qualities and properties. The concept of complexity, as ‘woven together’, brings for our research a contribution that overcomes linearity, sees society as the product of interactions between humans as individuals but as constituted within its culture, its language, retroacts to the individuals producing them as such, supplying with language and culture, at the same time products and producers. Based upon these ideas, we must be extra careful not to break up knowledge in separate boxes.

Teachers must be engaged in a awareness process, when those involved are mobilized to act, to engage in an action with reflection. In this process, the realities and knowledge of students and teachers gain importance, the activities can account for the pleasure of learning and teaching.

Morin (1999) emphasizes that the understanding of the other is a fundamental condition for the pedagogical relationship, which requires awareness of human complexity. We become humans who know and feel in a practice that assumes mutual respect, reflects and justifies the pedagogical action and deconstructs the formal authoritarianism. According to the author, we must begin to reform the thought in the initial years of education, so that children can develop relationships between problems and data.

Research about knowledge used by classroom teachers pointed out the existence of a specific teaching epistemology. The epistemology of professional practice, as conceptualized by Tardif (2003), which is not restricted to a mere implementation of university knowledge. In fact, it would be the synthesis, always dynamic, of a model of rationality where the university knowledge shares space with intuition, creativity, sensitivity, improvisation and the professional routine. In this way, the knowledge used by teachers in their daily work comes from a variety of sources: his life story, from his school memories, from knowledge acquired in their professional training, and from working experience (Tardif et al., 1991)

According to Nóvoa (1995), the problems of the teachers are not just instrumental, all involve situations that include several other aspects, bring uncertainty, conflicts of values, but mainly are unique and require unique responses, competent professionals that demonstrate reflective capacity. This author says that when we consider the quality of education, it is crucial that we deal with any proposed continuing education from three strategic axes: the person of the teacher and his/her experience, the profession and its accumulated knowledge and the school and its projects. With Paulo Freire (1996) we learn that the search is

constitutive of teaching action, and that “there is no teaching without research and no research education without teaching”.

Methodology

The methodology is based on a qualitative and biographical approach, valuing teachers’ own narratives and unique experiences in the constructions of knowledge. Research participants were young teachers still studying or recently graduated from the undergraduate course of Pedagogy. Data was collected through interviews and methods aimed at releasing personal narratives, such as journals and photographic collections.

The intention of hearing teachers’ voices and their perspectives is according to Erickson’s (2004) concepts of an ethnographic research approach. Erickson (1986) also points out that ethnography is intrinsically democratic, for its interpretative nature, and constitutes of a deliberate effort by the researcher in the setting, who has to carefully observe how the social actors formulate their questions and answers. So, the investigation can be considered ethnographic, because of its nature, which claims for close and long contact between researchers and participants. Data and information collected in the various spaces were analyzed and interpreted in accordance with the principles of thematization (Fontoura, 2011), which analyzes the content and themes that emerge. The project was developed in three major sub-projects, but all had the basic aim at studying initial teaching perspectives and possibilities of university-schools interactions for a better result in teaching training processes.

Results & discussion

The first branch of the research project dealt with interviews with beginning teachers, which, when confronted with the theoretical framework, like Tardif (2002), Ludke (2008) Nóvoa (1992a, 1992b, 1995) and André (2001a;2001b), allowed us to identify four themes – **training, daily activities, reflexion and teacher-researcher**.

As far as **training**, was identified the dedication by teachers to give students their best pedagogical experiences, that added theory and practice, reinforcing the plural aspects of teaching practices; in this sense, we think it is very important that teachers think about what they do, why they do it that way and how they change what is not working in their own perception not because someone told him/her so. During the research/training process we recuperated their story as an identity process construction, building up a new culture in teacher training, teachers as producing their own processes in dialogue with other teachers (Nóvoa, 1992b). Tardif (2002) gives us the basics to understand how teacher knowledge is produced, through professional development (given by institutions); contents (that come by the fields of knowledge and cultural tradition); curricula (teaching programs) and experiential knowledge (through daily activities).

Most participants referred to their **daily activities**. Our analysis of these practices draw on the work of Tardif (2002), who remarks the importance of taking into account the knowledge that teachers develop in service, what they learn from day to day experiences, overcoming the idea of a teacher who only transmits knowledge produced by others, but also constructs it. One teacher pointed out the importance of students memories as part of their learning process, reaffirming Tardif and cols.(1991) that state the importance of school memories as part of what one learns, student or teacher; other teacher brought about the importance of self-awareness in the sense of getting to know ourselves and by that path direct our self-formation process. It was also identified the teachers’ perceptions about their profession, highlighting the recognition of their responsibility when choosing to become teachers and stay in teaching, perceiving the formation process as a continuum, remembering

Freire (1996) when he says that when we form we are at the same time being formed, and that teaching and learning are a two way street.

It was also perceived the **reflexion** aspect in the discourses of participants, who seek to think about teaching routines and dilemmas, understanding the complexity of teaching and the necessity of understanding the real meaning of what they do as teaching practices. Nóvoa (1995) emphasizes practice as a re-signification of action and opening of a reflexive path, beginning with action itself and producing a work that is at the same time singular and meaningful for the ones involved. He criticizes the spaces where educational discussions take place, defending a construction of alternative fields of debate, where school autonomy can be evaluated as positive and schools' internal organization can be strengthened. This can be done through formation-action-research projects.

One important aspect was the identity of **teacher-researcher**, that according to Esteban & Zaccur (2002), promotes on teachers a crescent autonomy instead of them executing others' thoughts and sayings. Studies on teachers as researchers have been object of several investigations, reinforcing the indissociability between teaching and researching and the formative aspect of research activity for teachers.

Lüdke (2008) expresses that the relationship of teachers with research is complex, because sometimes they do not have their own criteria for judging how to show their own value or even assess which contributions the research can bring to their professional development and practice. The author, nevertheless, affirms that in face of teachers' proximity with school problems and life at schools at large, they encounter favorable conditions to develop research about their practice and resignify it. Become a researcher is part of what the ones who work on teacher training aim for them.

André (2001b) points out that, to obtain an effective result from teachers' research, one needs: teachers who wish to investigate and question their practice; training to learn how to formulate problems and investigative issues, meet and select methods and tools of research and analysis; space to develop and access research materials, specialized bibliography and reference sources. In this way, we have identified in the interviews a concern of teachers to promote with students experiences in research projects. Then, one can see that teachers recognize the importance of preparing the future teacher to practice research, as this allows a space for reflection, and strengthening teacher's professional identity. It can also provide moments of confrontation with the knowledge, skills, favoring the development of the sense of profession and teacher professionalism.

Once more we count on Freire (1996) that shows us that research and teachers are intrinsic, since the practice of research in the daily life of the school makes it possible to unveil the conditions and contexts that favor performance, serving as a reflection and assistance in the training of teachers and allowing to revise and re-shape their concepts and ideas to improve experience and to build new knowledge.

The second branch of the research dealt with results of a questionnaire developed in order to identify expectations of student teachers about the *Practicum* developed in their final years of university. The categories came about during the process of reading the responses, as many ethnographic studies do, and some are presented now: personal attributes; control of methodologies; knowledge about contents and good interactional skills. The participants were from different areas of teaching practice (History, Geography, Portuguese, Mathematics and Science), some had previous teaching experience but most did not have any experience. Participants were asked to mention three situations they valued in classrooms, and the answers revealed teacher-student interactions, good teaching practices, interactions with classmates, teachers' motivation, integration between parents and schools and students' autonomy. It is interesting to note that most situations pointed dealt with affective matters and issues related to teachers' competencies. As situations that cause concern, they mention

lack of teaching skills, lack of respect between teachers and students or students and students, problems with evaluation situations, crowded classrooms and problems with principals that seem not to care about teachers or students wellbeing.

The last question was related to what was important for a good training process. They highlighted the following aspects: teaching skills, in service training, keeping in touch with new trends in education, liking to be a teacher, being up to challenges, developing research in the school/classroom, being able to reflect upon his/hers actions, being active and creative and evaluating students as best as possible. When asked to narrate an experience considered important in their development, some brought up situations lived in classrooms as students and some as teachers. These experiences were mostly related to strategies and methodologies that had innovative approaches.

The third branch was a course developed with teachers in a municipal school, also a setting for students to develop their *Practicum*. The course was a space to develop a proposal of action-reflexion-action (Tardif, 2002), where weekly the participants developed an intense questioning of practices and theory, readings, writings, and discussions, looking for the broadening of self concepts and concepts about teaching as a profession, always in interaction with the self and the others.

According to Nóvoa (1992a), the challenge is a big one, as teachers have to keep up with new trends as well as develop efficient pedagogical practices, as learning, for the author, is a permanent process that considers the person who learns as well as the school setting, a place of permanent professional growth. Bolzan (2002) argues that a reflexive teacher learns from analyzing and interpreting his/hers own activity, constructs in a personal matter his/hers professional knowledge, makes it his/hers own in a form of overcoming what is institutionalized. At the end of the process, we analyzed the importance of teachers training for our professional development, stating that this space allowed for theoretical discussions of themes as teaching-learning, building knowledge, autonomy and professional development, articulated with authors suggested by the group, as Freire, Piaget and Vygostky.

As ethnographers, the questioning oriented our path throughout the research; take our own reflexion into our hands was a challenge that turned us all into co-responsible for outcomes and for steps that lead to better practices and better teaching all together. A few theoretical and practical challenges were raised about teacher training. The training gives teachers not only knowledge in the classroom. He or she needs to know the issues on education, the various historical perspectives, analyze socio-cultural practices, and still need to know the development of his pupils in its multiple aspects: affective, cognitive and social, as well as reflect critically about his/hers role before his/hers students and society.

Findings & conclusions

Findings show on a macro level, that educational policies, inspired by managerial principles, have transformed the work of new teachers, driving practices targeted at global standards and personal assessment criteria. On a meso level, local educational authorities have provided unstable basis for the initiation of young professionals. Low salaries, unsuitable working conditions and curriculum reforms have demotivated teachers and hindered the education of disadvantaged children. On a micro level, the narratives of young people show that, despite the obstacles, teachers believe in their power to produce emancipatory practices and new ways of thinking and doing education.

We conclude that teachers' training requires actions that provide a reflective teaching practice and thought, enabling them to overcome the distance between the pedagogical practice and the reality. It must drive the teacher, both in training and in action, to be able to know the elements of their educational and social reality to intervene into it, to understand the meaning of freedom and collaboration with peers. To reflect on the possibilities and

challenges of teachers training, we occupy a place of boosters, as besides the discussions, we have forwarded proposals for teachers training, creating changes and inventing a better way of working.

In this sense, the study, from its proposal, can be set as a device for the circularity of knowledge between University (academic research) and school setting (training in action), providing that in this complex cultural circularity may emerge knowledge and expertise that can respond effectively to the challenges of teacher training focused on reinventing educational spaces as enablers of significant and emancipative knowledge production. Working in this perspective, the University must provide teachers in training with a rich experience in educational situations, causing them to be supporting of teachers' political-historical processes and also active subjects, enlightened, emancipated, acting as protagonists of their own history.

Our institution is then a space that consolidates itself as a place where one can build knowledge, learn theory and practice as part of the same process, and become researchers as teachers (Freire, 1996). In conclusion, the study argues that, if we are to retain promising teachers in low-income schools, there is an urgent need to align local and national political agendas to improve teachers' working conditions, salary and in service education.

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Improvement of Overall Equipment Effectiveness of Lek-Numpi Mixing Machine by Participatory Learning



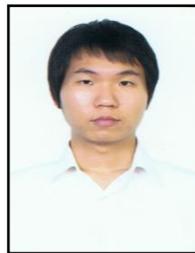
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Abstract

This paper aims to evaluate the satisfaction of students taken maintenance engineering course from Faculty of Industrial Technology, at Uttaradit Rajabhat University. The students were assigned to inspect and maintain a good condition of Lek-Numpi mixing machine. The assignment was simulated as a real industrial maintenance behavior.

The main focus of this assignment is to aid students' learning on how to measure the efficiency of machinery using overall equipment effectiveness (OEE) indicator. Machine problems were selected and prioritized by Pareto Method. Then, the selected problems were analyzed by Why-Why Analysis to find the root of the problems, and to plan a maintenance schedule for extending a better life circle of the machine.

Satisfaction survey of students show that students had more satisfaction in practical learning rather than theoretical learning at $\alpha=0.05$ significant level. Moreover, students were able to improve the overall equipment effectiveness (OEE) of Lek-Numpi mixing machine by 49.1%.

Keywords: Overall Equipment Effectiveness, Parato, Maintenance Machine

1. Introduction

The researcher places the importance of the improvement of an effective machine. Thus, there is an idea on experiential teaching. That is, students must practice in the actual situations on the effectiveness assessment of the machine before and after the improvements

based on causes of the machine malfunction. This includes methods of the machine efficiency improvement which conforms to the Maintenance Dependent on engineering subject. The researcher has conducted a situation model by using a Nam Pi iron ore mixture machine [1] existing in the Faculty of Industrial Technology which is like a machine in an industrial plant. In facts, the students are like an engineer designated to increase an efficiency of the machine used as a teaching media in the Faculty of Industrial Technology, Uttaradit Rajabhat University. The researcher perceives that an efficiency of the machine would be reduced if it has not been used or maintained for a long time.

In addition, the researcher wishes the students to understand the learning content of this subject. That is, they must be able to evaluate an efficiency of the machine and solve problems systematically. Besides, they must be able to analyze causes of the problems and plan about the machine maintenance. This aims to make them can apply obtained knowledge to the actual operational situations when they work for an industrial plant.

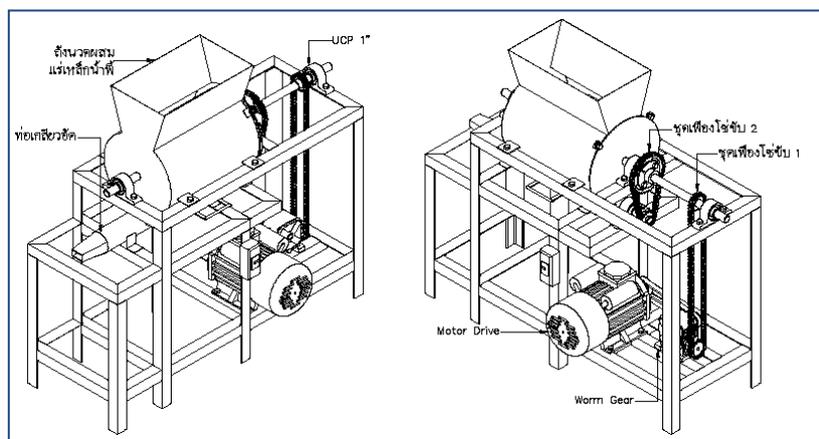


Fig.1. Lek-Numpi Mixing Machine

Source: Saensamart, N. et. al. (2011)

2. Related Theories

2.1 Overall Equipment Effectiveness (OEE) Measurement

It is a method of overall effectiveness measurement of various types of industrial machines or equipment. A good machine is not only a good machine but also an effective machine. There are 3 main variables used for the assessment of an overall effectiveness of the machine as follows:

Availability rate: A - the operational readiness of a machine:

$$\text{Availability rate} = \frac{\text{Actual time of the machine operation}}{\text{Time needed for the operation}}$$

Performance Efficiency: P - the value showing performance efficiency of the machine

$$\text{Performance Efficiency} = \frac{\text{Net performance time}}{\text{Performance time}}$$

Quality Rate: Q - the value showing working performance of the machine to produce precuts meeting requirements of customers per a total number of the products.

$$\text{Quality rate} = \frac{\text{A number of good products}}{\text{A total number of all good products}}$$

Overall Equipment Effectiveness: OEE - Result of the multiply of the availability rate and the quality rate.

$$\text{OEE} = \text{Availability} \times \text{Performance} \times \text{Quality rate}$$

2.2 Pareto Chart

Pareto Chart is a quality tool helping us perceive and solve problems as well as making a sequence of importance. The Pareto chart employs the principle of 20/80 (20% minor and 80% major). That is, only 20 percent causes most damages to a firm and this problem must be solved as a priority. Then, computation must be done for finding an accumulative frequency value. Obtained accumulative value of each value is plotted in the Pareto chart. Meanwhile, Gannon is a kind of problems and frequency of each problem and the accumulative frequency should be solved for the occurrence of rapid outcomes.

2.3 Why-Why Analysis

It is a systematic analysis technique used for finding causes. A method of problem viewing of the Why-Why analysis:

1) Viewing a problem which should be the first guideline. It aims to look for causes by using imagination about forms, and conditions. That is, a comparison of self-methods and standard ones accepted by the public. The “Problem perception based on the conditions as it should be” is a guideline determination seeking causes of the problems. This can be done by comparing the problems occurred by a situation that it is likely to be happened. This is likely to be happened after the determination of a guideline seeking for causes of problems. The term “Why” must always be set for finding factors or causes of the problems.

2) Perception based on principles and theories The problems are viewed based on the understanding of principles and theories related to performance efficiency of the machine.

2.4 Hypothesis Testing

This method is appropriate with a sample group of less than 30 ($n < 30$). Importantly, a researcher must know the variance value of the population. In the case that the researcher does not know the variance value since he has no an opportunity to know it he may use the variance value (S^2) of the sample group. However, the hypothesis testing about an average mean score of two groups of the population (dependent samples) can be the difference inspection of an average mean score of the sample group having a relationship with each other. The formula used in this matter is:

$$T = \frac{\bar{D} - d_0}{\frac{s_d}{\sqrt{n}}}, \quad \text{d. f.} = n - 1$$

2.5 Literature Review

Sitalaphruek I. [2] measured the overall equipment effectiveness (OEE) by using check sheet to collect the necessary data for the analysis. Before the improvement, the overall equipment effectiveness was only 66.62%. Main causes of the low machine availability are machine break down and loss time due to machine setting at the beginning of production or when model change. Corrective action for the machine breakdown is to provide the machine restoration and solved machine setting at the beginning of production. Overall Equipment

Effectiveness evaluation after improvement shows the increasing efficiency from 66.2% to 84.5%.

Boonpet F. [3] improved the effectiveness of Anti-Reflection coating machine by identifying “Waste” which had be the cause of poor machine performance then improved by Waste reduction technique belong with LEAN concept. Overall Equipment Effectiveness evaluation after the improvement shows the increasing efficiency from 61.8% to 76.3%.

Madtharuk W. and Janninnawong W. [4] improved overall equipment effectiveness of pellet mill machines in aquaculture feed mill factory. The QC Story theory is used to analyze all data and resolve problems. Before improving of machines, the researcher is analyzed by using fishbone theory and found that there are low two parameters, which are machine availability rate and machine performance rate. The researcher tries to find out methods to increase overall equipment effectiveness for machines. After improving process, overall equipment effectiveness of second line increase from 74% to 84% and third line increase from 75% to 93%.

Salaipet S. [5] studied and improved of overall equipment effectiveness of machine in Semiconductor factory mini photo coupler device. To analyze the problems by brain storm theory, Pareto Diagram is used to select the problems and operate the root cause diagramming analysis subject to man, machine, materials, and method. The result after improvements of the overall equipment efficiency is increased up to 79.7%. This result can be divided into categories of DB 77.57%, WB 74.02%, Encamp 79.50%, Mold 82.07%, Inspection process 79.59%, Test marking and taping process 84.71%.

3. Research Methodology

3.1 Determination of a machine for improvement

The researcher had selected a Nam Pi iron ore mixture machine available in the Faculty of Industrial Technology. Since the machine had not been used for a long time, it male the machine do not work well. Thus, the researcher had to improve the machine to work well like that of in industrial plants.

3.2 Investigation the operational performance of the machine

Students explored the principles and operational methods of the machine form its manual. The operation principles of the machine were the combination of clay and Nam Pi iron ore using driving shaft operated by an electrical motor.

3.3 A survey of Current depreciation of the machine

Students conducted a survey on the depreciation of the machine. They also analyze occurred problems and find that driving shaft (Figure 2) had a problem.

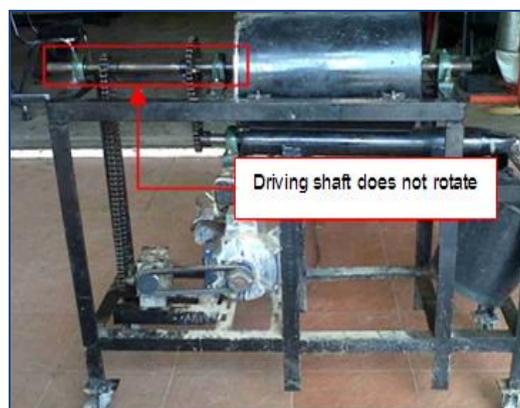


Fig.2. Driving shaft does not rotate

3.4 An analysis of causes and problem solving measure

Students analyze actual causes of the problems by brainstorming. Why-Why analysis was employed for the improvement of an efficiency of the Nam Pi iron ore mixture machine.

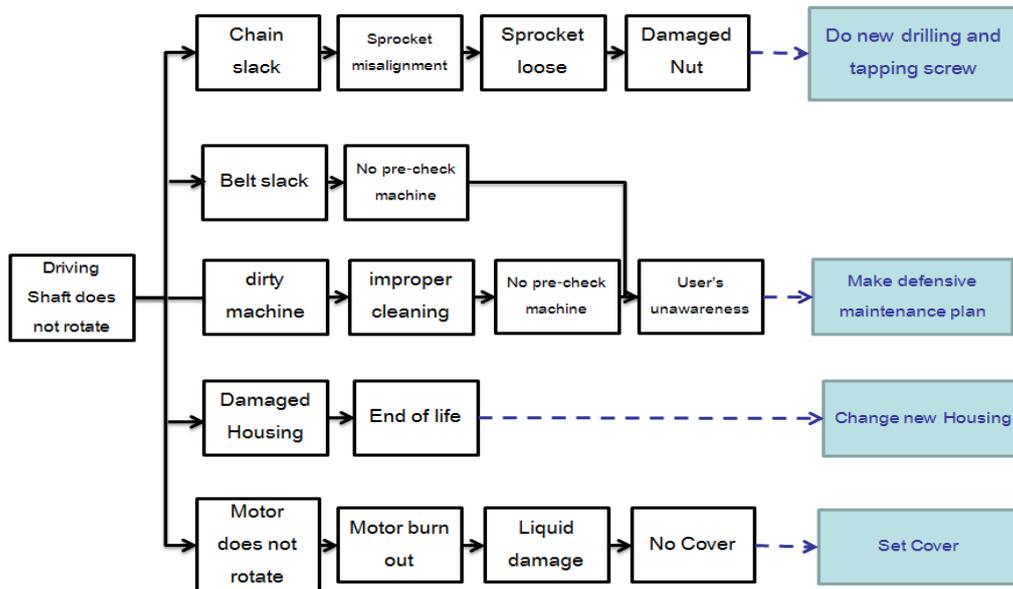


Fig.3. Root Cause study using Why-Why Analysis

3.5 Improvement operation

The students had already analyzed causes and determined a measure to improve the machine. Then they made a plan for the improvement based on the Why-Why analysis as shown in Figure 4

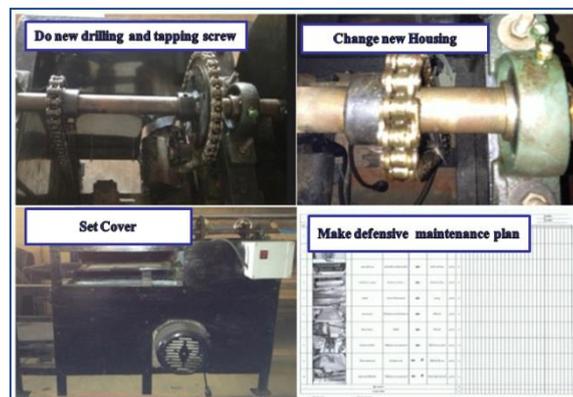


Fig.4.Improvement of Lek-Numpi Mixing Machine

3.6 Improvement inspection

After the students had improved the machine, they inspected effectiveness for finding an overall effectiveness value. Its effectiveness was found at 49.1 %.

3.7 Measuring student satisfaction

This is shown in Table 1 (The reliability level is at 95.0%)

Table 1 Student satisfaction between theory learning and practice

	N	Mean	S.D.	t
Theory	12	53.25	5.36	2.55**
Practice	12	56.25	5.07	

** p<0.05

4. Conclusion

The teaching/learning activities on maintenance based on engineering and student participation was found that the students were very satisfied with knowledge about the improvement of the machine based on: problem analyses; selection of problems to be solved; analyses of actual causes; and overall equipment effectiveness. The said various methods can be a guideline for the improvement of the machine. Besides, it was found that the students could improve the machine based on its effectiveness form 40.3 percent. The researcher hoped that the students could apply this knowledge to the improvement of machines in industrial plants.

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Trends in the Education of Children with Learning Needs in School for the Deaf in Enugu Education Zone



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Abstract

The purpose of this paper is to determine the effect of quality leadership in organising and coordinating government, institutional and private efforts in educating children with learning needs in the school for the Deaf Ogbete, Enugu. The School has advanced from a primary to a secondary school. Primary source documents were studied; questionnaire was designed to elicit information from teachers at the deaf school Ogbete Enugu on the efforts of government, institutions and private groups in educating the learning needs children. Descriptive statistics (SPSS) were employed in the analysis and interpretation of data. The results showed that institutions have come in to identify the learning needs of deaf children. The state government has secured the institution physically, developed infrastructure and improved boarding facilities and equipment supply. The administration has worked to ensure that the available human and material resources are effectively coordinated and managed. Though efforts have been intensified by all and sundry but, much is not required in the area of the existing syllabus on total communication. This syllabus has lasted for about 35 years now. The teachers in the institution should be encouraged to specialise in the area of total communication to ensure that the language base of the children is strengthened. Also tertiary institutions should endeavour to grant in service training to the teachers in sign language because of the serious lack sign language teachers at that level of education.

Introduction

Special needs children require formal educational training, special in kind due to their particular disabilities (Anih 1990). The aim of special education is to provide and equalize educational opportunities for all children so that special needs children can contribute to development, their disabilities notwithstanding. The children that should benefit from special education are in many categories but this paper will address the hearing impaired-'deaf and partial hearing' (Federal Republic of Nigeria-FRN, 2004).

FRN (2004) also notes that the Federal and State Ministries shall in collaboration with Local Government Areas and appropriate bodies provide free education; facilities; special equipment and materials and train and retrain teachers of special needs children. The establishment of the special school for the deaf Ogbete, Enugu is part of the efforts at

ensuring the provision and equalization of educational opportunities for the hearing impaired children.

Hearing impaired children have varied complications which limit their abilities to comprehend the physical and interpersonal features of the world. The inabilities of the deaf to interact through functional speech, earned them the label mentally retarded, emotionally disturbed or autistic as they may not fully realize their intellectual abilities. The children are labelled as slow learners, stubborn and different by teachers, parents and peers. The deaf children incurred these labels due to challenges in social, emotional and concept development arising from lack of language (Onyebuchi, 2013). She maintained that the teaching of deaf children is always considered difficult due to the problem of communication. She further called for a revision of the 1978 Syllabus on Total Communication still in use. Her belief is that effective means of communication will aid education, adjustment and integration of the deaf. Therefore to fully educate and maximize the potentials of the deaf, effective leadership, revision of the total communication syllabus and humaneness are necessary tools (Miller 1971).

Leadership is a key factor in any organisation. The success of any school rests on the leadership. Leadership is the ability to guide, modify and direct the actions of people to achieve organisational goals (Federal Government of Nigeria – FGN, 2012). Davis and Ellison in FGN (2012), posit that emerging trends in leadership is ensuring that the group move forward by utilizing the efforts of individuals who complement and enhance each other's skills to achieve a common goal. The Principal, Headmistress and the Health arm of the school have worked collaboratively to meet the needs of these children. The deaf school leadership has also stretched hands to tertiary institutions to aid students who lack sign language lecturers. Onwuamaeze (2013), a teacher in the school, maintained, that 'our work with the deaf is humanitarian rather than money seeking'.

The teacher is indispensable in the activities of any school (Kalu, 1993). He determines the quality of education by his training, resourcefulness and devotion. In his role as a conveyor of learning, humaneness and effective use of resources are vital factors in the education of children (Anih, 2000).

Resources may be human, physical facilities, learning resources or equipment. These resources constitute integral parts of the school (FGN, 1986). School facilities have assumed various dimensions and importance and have helped to create stimulating teaching and learning environment in schools. Facilities add quality to learning and make teaching simple to a devoted teacher. FGN, (1986) is of the view that special facilities are necessary to accommodate classrooms, workshops, laboratories, libraries, etc. Learning resources include the rich variety of media as books, periodicals, charts, and electronic media and for the deaf, audiological equipment. Resources inspire, encourage and facilitate learning thereby communicating opportunities, promises and insightful thoughts to students.

However the task of educating these deaf children in Enugu is collaborative. Government's efforts are felt in the institution in recent times. Government has contributed much to infrastructural development. Yet finance is necessary for the invitation of resource persons, buying of consumables and necessary materials for curriculum implementation. A health institution working in collaboration with the government, private groups and individuals has come to the aid of the deaf children. School records such as visitors' book, daily logbook, etc. showed that religious groups and individuals send daily ration and cartons of biscuits and beverages to the children.

Most of these gifts come from people in the surrounding communities of Enugu. Some parents whose children are in the institution pay little attention to them (Ezeanolue 2012). In consideration of the above discussion this work is premised on the following purposes.

Purpose of the study

The purpose of the study is to

- Assess the quality of the school administration.
- Determine the quality of teachers.
- Determine governments' efforts at improving the school.
- Assess the availability of physical facilities.
- Determine issues in the education of the deaf.

Research Questions

The following research questions guided the study

1. What is the quality of the school administration?
2. What is the quality of teachers in the school?
3. What are governments' efforts at improving the school?
4. What are the available physical facilities?
5. What are the issues in the education of the deaf?

Theoretical Framework

This study adopted Anih Eclectic Model (Anih, 2000). This model has four parts represented by:

- Specification: incorporates administrative styles, staff, materials, equipment, facilities etc.
- Implementation: represents the practices and outcomes as identified in the institution.
- Evaluation: seeks for the discrepancies between the specification, and the implementation of outcomes. This model will expose the facets or activities in the institution and identify the outcomes.
- Conclusions and recommendations.

The model balances the layout of this paper.

Method

Special school for the deaf is just one in Enugu. Enugu is the capital of present Enugu state. The state is one of the five states of the South-east geo-political Zone of Nigeria.

The design was a case study approach. The mode of inquiry embraces a questionnaire instrument designed on a four point scale, thus 'strongly agree' (4) 'agree' (3) 'disagree' (2) and 'strongly disagree' (1). The 30 items were designed to elicit information on the administration, staff, resources, activities, etc. Out of the 21 teachers in the school, 17 teachers in both the primary and secondary sections who were on the spot responded to the questionnaire items. The items were validated by peers in the field of Measurement and evaluation who confirmed the use.

Primary source documents were consulted. Interviews were conducted, and Observations were made of the facilities.

The data collect were analysed using SPSS to determine the means. The results were used for interpretations and conclusions.

Results and Conclusions

Table I: The quality of school administration

	Min	Max	Mean	Decision
Effective coordination of school activities	1.00	4.00	2.59	Agree
Administration initiates relevant programmes	1.00	4.00	2.35	Disagree
Administration initiates relevant activities	1.00	4.00	2.24	Disagree
Administration gives credit to subordinates	1.00	4.00	2.65	Disagree
Administration play leading role in quality teaching	1.00	4.00	2.71	Agree

The data in table I on the quality of administration show that school activities are effectively coordinated with mean 2.59. Administration does not initiate relevant programmes nor activities have mean 2.35 and 2.24 respectively. The mean 2.65 and 2.71 show agreement that administration gives credit to teachers and plays leading roles in quality teaching.

Table II: Quality of teachers in the school

Items	Min	Max	Mean	Decision
Number of teachers are enough for the school	1	4	1.94	Disagree
Teachers have room for in-service training	1	4	2.06	Disagree
Quality of teachers meet needs of deaf	1	4	2.12	Disagree
Teachers teach many subjects	1	4	2.82	Agree
Teacher are properly assessed	1	4	2.17	Disagree
Teachers show elements of humaneness to the deaf	1	4	3.24	Agree

Table II shows data on the quality of teachers, the mean 1.94, 2.06, 2.12, number of teachers are not enough; teachers have no room for in-service training and quality of teachers do not meet the needs of the disabled. Also teachers are not properly assessed with mean 2.17. The mean 2.82 and 3.24, show that teachers teach many courses and show elements of humaneness in dealing with the deaf.

Table III; Teacher qualification

Qualification	Frequency	Percentage(%)
B. Ed	3	17.6
BA Ed	2	11.8
PGDE	1	5.9
NCE	11	64.7
Total	17	100

Table III shows data on teacher qualification. It will be observed that the qualifications are in teaching areas but NCE the least of the qualifications has the highest percentage 64.5. The rest are B.ED 17.6%, BA Ed 11.8% and PGDE 5.9%. Teacher quality is low.

Table IV: Specializations in special education

Area	Frequency	Percentage(%)
No special training	3	17.6
Hearing Impairment	3	17.6
Mental Retardation	1	5.9
Speech Impairment	2	11.8
Learning Disability	1	5.9
Special teachers	7	41.2
Total	17	100

Table IV shows data on teachers' areas of specialization. Teachers with no special training and those in hearing impairment have 17.6% respectively. Speech impairment has 11.8% while mental retardation and learning disability have 5.9% each; and special teacher 41.2%. Teacher quality is low.

Table V: Efforts of government etc. in improving the school

Items	Min	Max	Mean	Decision
Government is responsive to school needs	1	4	2.53	Agree
Government makes serious contributions	1	4	2.59	Agree
Parents of wards attend meetings on invitation	1	4	2.47	Disagree
Parents show interest in their wards education	1	4	2.18	Disagree
Health institutions are involved in deaf education	1	4	2.71	Agree
Community cooperates with school	1	4	2.76	Agree
Resource persons are readily available	1	4	2.06	Disagree

The data in table V show that government is both responsive and makes serious contributions to the school by the mean 2.53 and 2.59. Parents neither attend meetings when invited nor show interest in the children with mean 2.47 and 2.18. Also resource persons are not readily available with mean 2.06. However health institutions are involved in deaf education and the community cooperates with the school.

Table VI: Availability of facilities

Items	Min	Max	Mean	Decision
Institution is properly secured	1	4	3.06	Agree
Infrastructural facilities are adequate	1	4	2.41	Disagree
Classrooms are enough	1	4	2.88	Agree
Classrooms are over-populated	1	4	2.47	Disagree
Boarding facilities are available	1	4	2.59	Agree
Boarding facilities are adequate	1	4	2.29	Disagree
Relevant teaching materials are available	1	4	2.35	Disagree
Institution has relevant equipment for skills devt	1	4	1.94	Disagree
Textbooks are available	1	4	2.29	Disagree

Table VI shows that the institution is properly secured; classrooms are enough and boarding facilities are adequate with mean 3.06, 2.88 and 2.59. But infrastructural facilities are not adequate; classrooms are over-populated; boarding facilities are not adequate; relevant teaching materials are not available; no relevant equipment for skills development and textbooks with mean 2.41, 2.47, 2.29, 2.35, 1.94 and 2.29 respectively.

Table VII: Issues in the education of the deaf

Items	Min	Max	Mean	Decision
Programmes for skills acquisition are available	1	4	1.76	Disagree
Separate curriculum should be designed for the deaf	1	4	3.06	Agree
Deaf children have opportunity for further studies	1	4	2.71	Agree
Children participate in sports	1	4	2.71	Agree
Children are provided with relevant skills materials	1	4	1.94	Disagree
Children perform well in external examinations	1	4	2.65	Agree

Table VII on issues in the education of the deaf shows that programme for skills acquisition are lacking and children are not provided with relevant materials for skills acquisition with mean 1.76 and 1.94 respectively. However separate curriculum should be designed for the deaf; deaf children have opportunities for further studies; they participate in sports and perform well in external examinations with mean 3.06, 2.71, 2.71 and 2.65.

Discussions

The administration coordinates the activities of the school properly, gives credit to subordinates and plays leading role in improving the quality of teaching (table 1). The administration does not initiate programme or activities because government schools do not go outside the prescribed standards.

Teacher quality is low (tables II & III). The teachers are professionals but 64% have NCE. Also 41% are not specialists in any area of special education. Nzem (2011) a deaf graduate of the school observed that the teachers are not disciplined in their approach to deaf education. However the teachers are humane in handling the children. This humaneness presents elements of humility that has helped the administration to coordinate the affairs of the sections of the institution. Enugu state government responds to the needs of the school and makes serious contributions. From observations and interviews, the state government has accomplished the reconstruction of the audiological unit which had become a dormitory before its reconstruction. The students have since moved into the dormitories where water supply and electricity are available. Government has accomplished the perimeter fencing which has given staff and students some sense of security. The present school administration called for government intervention.

Parents are careless about their children in the school. Ezeanolue (2012) observed that some parents just dumped their wards and do not show concern in their challenges. Biological parents to the children consider them a curse, hence the preference of keeping such children in the boarding house.

A health institution the University of Nigeria Teaching Hospital–UNTH, Enugu moved in and tested the pupils and inmates of the school with a view to providing hearing aids (Ezeanolue, 2012). The community and groups are not left out in providing for the children. In the course of this study, religious groups from neighbouring communities came with food items and biscuits. However resource persons are not easily available because of the difficulty in communicating with the deaf. A deaf graduate of the school Nzem (2011) noted that there are no guidance counsellors, deaf schools are poorly planned and hastily started and teaching is examination oriented creating room for rote memorisation of facts.

Relevant teaching materials and textbooks are lacking and the classrooms are bare of resources. Upton in Anih (1990) observed a serious lack of teaching resources in Nigeria's classrooms. The case with the school under study is worse, for chalkboards are the only teaching resource in the classrooms. The equipment provided by the state government are yet to be displayed for use.

The deaf children in tertiary institutions are handicapped for lack of sign language lecturers. The humane nature of the administration has made her allow the teachers to go and sign for such students during lectures.

Conclusion

The outcomes as discussed represent trends in the education of the deaf. The children who were once relegated by all are now catered for by the government, groups and individuals.

A health institution has come to her aid and efforts are being made to ensure that those in tertiary institutions compete with normal students effectively.

Recommendations

In view of the foregoing discussions, this paper makes the following recommendations:

Efforts should be made through the media to educate parents on the need to train their children.

Federal Ministry of Education should intensify efforts to revise the existing syllabus on total communication.

Tertiary institution lecturers should be encouraged to study sign language through in service training to aid the deaf in their institutions.

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Dilemmas of Numerical Transformation: A Critique of Student Body Diversity in the South African Higher Education Post-1994

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Abstract

In South Africa, there was euphoria about the transformation of higher education, when the apartheid system came to an end in 1994. The citizenry and many policy makers took it for a given that initiatives in legislative transformation would consequently bring about the much needed positive change in the higher education sector. Nevertheless moves towards this transformation largely remain legalistic and at best minimalistic. Although notions of transformation have overtones of improvement, a better system of life for all, this ideal has the potential to bring about both constructive and destructive consequences. This can lead to the perpetuation of clear racial categories, mimicking the old apartheid categories.

This paper focusses on conceptions and practices of student body diversity in higher education and their limitations. It argues that although these conceptions are intended to create and nurture a “non-racial, non-sexist, non-discriminatory society where all people recognize each other’s differences while at the same time live in peace and harmony” (Cross, 2004, p.395) as the constitutional mandate expects of higher education institutions; the conceptions have become very inadequate in fulfilling this goal because of an over-emphasis on mere demographic transformation. This raises further questions on the credibility of the intended social cohesion thereby making social transformation a mere numbers game.

Key words: Higher education, transformation, student body diversity

Introduction

The theme of student body diversity within the transformation of higher education in the post-1994 South Africa is inadequately framed for it to promote social cohesion. The major dilemma arises from the fact that higher education transformation in South Africa has mostly translated into a mere numbers games thereby overshadowing critical social transformation processes. Our argument takes the issue of student body diversity as a case. This is contrary to the constitutional mandate which urges higher education institutions to create and nurture a meaningful “non-racial, non-sexist, non-discriminatory society where all people recognize each other’s differences” (Cross, 2004, p.395). In dealing with student body diversity, it is possible to examine the rationale for student body diversity; the place of race and language exclusion; problems of institutional cultures; the inability of institutions to enforce social cohesion in purported democratic spaces, etc.

Methodological considerations

This paper uses philosophical frameworks where conceptual analysis takes an upper hand. We further position our argument within phenomenological approaches whose derivative end

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is a critical theory approach. But this positioning comes with its own inherent tensions. Our choice of these paradigms is much a condition of academic dispositions as well as an acknowledgement that student body diversity needs to be understood and interpreted correctly for meaningful transformation to take place. We further acknowledge that policies in higher education are not simply about the smooth operations of institutions but that specific social values come into play.

Ndofirepi and Shumba (2012, p.141) have re-articulated a philosophical inquiry as an explanation of practice, grounded in the exploration and clarification of “the underlying assumptions of competing value framework, critically reflecting on conventional views and assessing their worth in educational research”. Hence if concepts are not exposed to a philosophical analysis, the danger is that in the end, the theme’s intentions are completely lost. Concepts can also serve specific purposes rendering them vulnerable to misinterpretations. The misinterpretations can lead to the misuse of policy objectives (see Burbules and Warnick, 2006, Waghid, 2002, p.5). Critical interrogation of concepts enables us to construct and explain the meanings of these concepts as one way of providing educational solutions.

Dealing with social practice in this way comes with its own inherent tensions. For instance, the combination of phenomenology and critical theory may be perceived as problematic. The illusive formats of meaning making that exist may be understood by others as a call to detachment from the real issues that rock our institutions; and that the interplay between subjective and objective perceptions in one exercise may not actually bring much clarity. These tensions cannot be avoided because the issues of student body diversity we are dealing with are within the context of a transformed higher education system, where the necessity to make higher education responsive to the neo-liberal demands of training people for the job market assumes that such an approach will also bring about a transformed society that results in social justice.

The restructuring of Higher Education and the rationale for student body diversity in South Africa

In 1996, the National Commission on Higher Education (NCHE) was instituted with the primary objective to advise the Minister of Higher Education on the restructuring of the higher education sector (Reddy, 2004; Badat, 2004). The final work of this commission culminated in the publishing of the White Paper 3 of 1997. The commission duly acknowledged the diversity of the South African society and emphasized the importance of developing an individual’s intellect, abilities and aptitudes, regardless of race, gender, age and any other difference. The work emphasized that higher education institutions should avoid social practices that replicate the apartheid system of racial and language discrimination (Department of Education, 1996). In the apartheid system higher education did not only promote segregation of different races and language groups, but also created a sense of white superiority at the expense of other races which were regarded as inferior. Fragmentation was not only at that physical infrastructural level but also at the level of social value and perceptions. The restructuring of the sector urgently understood the need to reconstitute student body diversity as a way of inculcating new social values and promoting social cohesion.

The theme of student body diversity post-1994 was meant to promote racial integration and multilingualism within higher education, and not justify separation and segregation of races and language groups in the institutions (Reddy, 2004). This ideology ‘worked’ to the extent that most institutions of higher education endorsed this and used it as a criterion for admission. Universities were largely mono-racial and mono-lingual spaces. The

transformation of higher education therefore carried the burdens creating social cohesion (Moletsane, Hemson and Muthukrishna, 2004). We view student body diversity as an essential element of this process and an attempt to bring about a non-discriminatory society. The imperative for student body diversity meant that, “*the composition of the higher education system’s student body must over time begin to reflect the demographic reality of the broader South African society*” (Department of Education, 1997, p. 2). With this imperative, races and language group began to converge under one roof. Mdepa and Tshiwula are of the view that, “the country had no choice but to address issues related to the inclusion of diversity in higher education” (2012, p. 19). Diversity in higher education is an acknowledgment and a realization that the ideology of separation and fragmentation could no longer be sustained in the new democratic dispensation.

The rationale for student body diversity in transformation indicated that higher education is a national asset in developing competency, and that all other levels of educational system become transformed and contribute to the national goal through it. Social cohesion within the student body diversity forms part of this process of building up a new society that is in line with the demands of the democratic constitution and a critical component in the building of a new social order. This in turn creates coherent institutions of higher education. The failure to establish the principles of non-discrimination could result from a poorly managed understanding of student body diversity. It is noted that in all the instances of racial and language tensions that have occurred in the post-1994, prejudices and lack of common social values have precipitated such incidents (Department of Education, 2008) where people are assumed to automatically collaborate without the necessary conditions that promote social cohesion at an ideological and social values level. We cannot deny that higher education institutions are points of convergence for diverse groups. The main aim of universities could be argued as the widening of cultural and intellectual horizons for students (Bunting, 2002). Hence, student body diversity was meant to foster participation, building trust, harmony, and shared form of lives.

The dilemmas of student diversity as component of higher education transformation in South Africa

The concept of student body diversity refers to racial and language groups’ composition in higher education, mandating that the demographic reality of such be constituted by different races. Such demographic reflection is considered as constitutive of the new South African social order. Engelbrecht, argues that “A flourishing democracy involves the rights of all previously marginalized communities and individuals as full members of society and requires recognition and celebration of diversity, reflected in the attitudes of its citizens and in the nature of its institutions” (Engelbrecht, 2006, p.254).

We share the above definition. Nevertheless, the demographic model of transformation only makes diversity makes a minimal contribution, although tolerance of diversity is a necessary condition for the democratic construction of a society. The diversification of the racial and language group composition of the student body directly impacts on tolerance and interaction across the racial and language barriers (Ault and Martel, 2007). Strangely, the transformational theme on student body diversity is framed in a manner that lays emphasis on the numerical racial and language group composition of the student body. Hence one wonders how this could result in the envisaged increased participation in higher education meant to overcome the legacy of fragmentation, inequality and inefficiency as argued by Bunting (2002, p.153). While a demographic shift is necessary in the context of the imperatives of transformation, this emphasis fails to bring about meaningful social cohesion because mere numbers are in themselves an inadequate motif for social transformation.

The demographic emphasis on student diversity is mainly manifested when the evaluation and assessment of student body diversity in higher education is given in terms of numerical

increase in students of different races and languages. Of course there has been clear observation that “black, and in particular African, student enrolments also increased rapidly between 1993 and 2000 and that compared to 40 percent in 1993, 60 percent of all students in universities and technikons in 2000 were African” (Badat, 2004, p.31). The demographic emphasis on student diversity is explicit articulated when “headcount” and numerical output rates are employed to denote the success or failure of diversity. We sympathize with those who express a satisfaction with a growth in numbers of black, Indians and coloured students in the formerly white only institutions of higher education as a remarkable revolution in the world (see Cooper and Subotzky, 2001; Cloete and Moja, 2005). But it is very difficult to argue that such dramatic change has result in meaningful shifts in institutional social values. Frustrations over the lack of transformation in various sectors of the South African higher education experience bear testimony to the inadequacy of complacency with numerical changes in the transformation agenda of South Africa. Our concern takes into account that values and perceptions that students bring along in the institutions of higher education may actually clash, thereby fuelling tensions. What is missed here is that bringing staff and students of different races and language groups under one institution does not necessarily bring together different social values, perceptions and norms that these people hold which need to be openly interrogated, engaged and transformed.

If “the question of making higher education more inclusive has to be a central concern in South Africa post-Apartheid policy documents, this should be reflected in way values of democracy, openness and human rights are embraced in education” (Bozalek, Carolissen and Leibowitz, 2010, p.1024). The democracy of numbers rather than a clear engaged of the values that should be the basis of a transformed society with clear understanding of what makes us different yet equal members of the same democratic polity is minimalist way of considering transformation.

Racial and language inclusions and exclusion are in tandem with demographic inclusion and exclusion in the higher education landscape. In the South African context, transforming the student body composition is a major social force in society and has the potential to alter the complexion of a population at large. This is why policies introduced in transformation were designed to make higher education accessible to all students without regard to their racial and language characterization. The increase in participation rates of the Africans, colored and women resulted in the realization of the student body diversity and also “opened access for the marginalized groupings of the population and to ensure greater academic success” (Hay, 2008, p. 936). While numerical aspects, for instance in terms of participation rates of black students that increased between 2000 and 2007 from 10% in 2001 to 12% in 2006; while that of coloreds moved from 8, 5% to 13% and Indians 42% to 51%, participation of white students remained stable at 59% of the different population groups according to Soudien (2010, p. 884). Despite the significant increase in the enrollment of students of different races within such a short space of time two observations need to be made. Firstly, the fact that many students who were once marginalized could apply and be admitted in such great numbers, only serve to expose the cruel nature of divisive apartheid policies in higher education (Mdepa and Tshiwula, 2012, p. 20). Secondly, the deracialization of higher education institutions policies meant that students could have access to the institutions of their choice. Indeed most of the institutions of higher education responded positively or obliged to the imperatives of transformation that called upon them to introduce student diversity. While Erlich (2004, p.578) suggests a corollary social democratization, such a conception can only be legitimate in narrow sense of ‘freeing’ the geographical space of institutions so that they are made accessible to academically qualifying students.

Racial integration is a critical component in re-imaging student body diversity for the new social order. Nevertheless this conception is minimalistic. While racial integration is an

acknowledgement of diverse racial and language groups within an institution, but this understanding does not exclude separate existence (Divala & Mafumo, unpublished). Hence the understanding does not go beyond the level of physically bringing together the diverse student body. We argue that racial integration should not just be a matter of physical proximity among members of different groups in the same school, but needs to characterize a positive intergroup contact and dialogue, and a gradual erosion of cleavages and conflict occurring on the basis of race and ethnicity (see Harber, 1998, p. 112). For Harber, racial integration challenges the basic concept of race as a point of difference. It challenges the assumptions, prejudices and attitudes that different race groups may hold against other groups.

While a combination of both physical and social proximity should constitute racial integration, the dismantling of group barriers that are determined by race, resulting in intergroup interactions within the institutions of higher education is critical. This is why we maintain that a model of transformation that ends at mere demographics, by bringing all races to study under one institution is inadequate and an evil to the imagination and creation of a meaningful democratic social order. Racial integration requires that the students' social values, principles, assumptions and beliefs undergo transformation as well (Department of Education, 2008). Racial integration needs major changes of deep seated attitudes and behavior patterns among learners and teachers of minority and majority groups and in the institutional patterns and arrangements of (higher education institutions) schools. The changes in attitudes and behavior patterns have to address the prejudices, fears and intolerance that have been instilled in the student community over a long period of time. Hence transformation necessary for meaningful racial integration in South African universities ought to seriously interrogate institutional cultures, most of which replicate the old apartheid categories.

The categories at stake become obvious to anyone transecting how students interact with each other in the so called transformed university spaces. In some of these spaces, exclusions on the basis of personal preferences, personal autonomy, the convenience of the language of conversation become continuously tolerated as an aspect of the very democratic values that ought to bring about change. We argue that democratic racial integration in managing student body diversity ought to go beyond a mere satisfaction with meeting the required demographic composition as stipulated and required by government policy mandate. It is only this approach which is capable of dismantling racial misconception within the institutions of higher education to enable "students from different social backgrounds to harness the different social and intellectual capital" (Moja, 2010, p. 2) in the recreation of new social values. One can also wonder if the recognition of all the different languages that form a central element of the South African democratic transition should not be revisited to see how this very liberalization of language policy in higher education promotes exclusion and makes the democratic transformation a fruitless exercise in re-imaging reconstituted forms of student body diversity. Nekhwevha argues that, "language habits are determiners of social relations as their role in shaping culture" (Nekhwevha, 1999, p. 503). Although Miller notes that, "language policy can be used as an instrument to unify people instead of an instrument of division" (Miller, 2003, p. 35), an experience of a number of aspects in the South African higher education indicate that the same democratic language policies have become 'democratic' tools used to exclude other people especially those considered as different to oneself.

Institutional incapacities to enforce social cohesion norms: a concluding dilemma

The capacity to enforce social cohesion in the institutions of higher education is compromised by the inadequacy of authority on the part of institutional management. The norms of social cohesion require social regulation, they require some form of authority that oversees that students adhere to these norms. The dilemma arises here in the sense that while an authoritative 'policing' of figure for social cohesion is needed, this can violate the very adopted democratic principles coupled with the students' beliefs that higher education's primary objective is to develop (academic) knowledge. In these spaces there is evidently a conflict between the universities' development and management of knowledge academics and their roles as custodians of culture and social formation sites. Whichever way, we maintain that the numerical emphasis on student body diversity fundamentally neglects necessary democratic practices and values.

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The Effects of Reform on Organisational Structure and Culture: Lessons Learnt

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Abstract

The aim of this paper is to discuss the policy for change and its effects on the school's structure and culture. Since the processes of reform disturb the social setting of the organisation, it is likely to cause tension between policy, structure and culture. This paper also discusses the role of teachers' professional development in bringing about changes in the individual's belief and action (Richardson and Placier, 2001). The literature shows the relationship between reform, structural change, organisational cultural change and personal change, as being complex (Sarason, 1990; Lieberman, 1982; Hargreaves, 1994; Fullan, 2001; Harris and Bennet, 2001, Richardson and Placier, 2001). Researchers agree that structural change is easier to achieve because it can be mandated. Yet, it is fruitless, unless it is combined with personal and cultural change. Lieberman (1982) contends that change fails because it does not target the cultural change of the organisation. Also personal change is even more complex. Accordingly, researchers (Hargreaves, 1994; Fullan, 2001) call for a better understanding of the individual's change process. This implies that cultural change is not a linear process and takes time, yet, is not impossible to achieve. Furthermore the change policy can influence cultural change. A cultural change, according to Fullan (1993; 2001) is underpinned by the nature of the change policy. Fullan (1993) is against 'top-down' or 'bottom-up' processes and calls for a participative process involving both, which, he contends, lead to a capacity-building for change.

This paper builds upon these findings from the literature and explores a number of Omani schools through an open questionnaire to 30 school leaders from Muscat Governate to see the effect of many school development initiatives targeted at performance improvement. It focuses on identifying gaps between policy and practice and whether lessons from the past are learnt in future reform projects. The results show that most school development initiatives are regulated in a top down process which results in structural change but lesser cultural changes. They also show that lessons from the past are taken into account but not fully learnt in forthcoming reform projects and that gaps between policy and practice, though lesser, still exists in other newer initiatives.

Key words: Top down policies, structural change, cultural change

The dialectical relationship between change policy and institutional culture:

Whilst the literature on organisational culture is voluminous, there is less about the effect of culture on policy. It seems that it has been taken for granted that policy makes culture, but not vice versa. In other words, research focuses on the effect of policy on cultural change but little research has been carried out about how culture informs policy. This implies that change is generated and planned at the top of the power hierarchy. In Australia, Taylor, Rizvi,

Lingard and Henry (1997, p. 165) describe the traditional perspective of the change policy as linear and they propose this perspective:

Our view of policy analysis conceptualises the relationship between policy and change as historically specific and politically charged, involving opposition, contestation and power. To describe policy historically is to understand its context and the ways in which it responds to pressures for change (Taylor *et al*, 1997, p. 164)

In real life, there are instances where a 'bottom-up' struggle leads to change. In addition, policy is also likely to be influenced by old conceptions, beliefs and mentalities, and practices.

In his discussion of the education policy in the UK, Bell (1999) shows how the current policies have evolved from what has gone before. According to Reynolds (1999), in the UK, reform was focused on the school but few attempts were focused on teaching, unlike in some other European countries, or in America and Australia. He relates this to reasons¹, which stem from a British tradition. This shows that, whilst politicians have a responsibility for making policies and seeking change according to internal and external imperatives, the focus of reform may become influenced by espoused beliefs and traditions. Thus, Taylor, *et al* (1997) contend that policies are more than texts. They argue that 'they represent political compromises between conflicting images of how educational change should proceed' (Taylor, *et al*, 1997, p. 15). This implies that policy implementation is never straightforward or linear. Where policies are seen as linear, implementation is seen as the link between policy production and policy practice. Traditional education systems treat policy development and implementation as two different stages. In this case, once the policy has been developed at the top of the power hierarchy, it is expected to be implemented by the organisation in a linear way. This linear process is, however, carried out in a complex social environment with agendas seldom matching the local interest. Accordingly, the change policy causes tensions between the political context, traditions of reform, development of legislation, and the social structure of the organisation (Taylor, *et al*, 1997, p. 17). Consequently, the results are unpredictable. Indeed, some organisations are immune to some kinds of change and more susceptible to others. Even when there are supporting factors, contradictory pressure may lead to the inhibition of change.

In 'top-down' systems, imposed change could be effectively implemented as well as being resisted, resented or reinterpreted. Yet, 'bottom-up' systems may lack the political support for the change initiative as well as consensus of disputable issues of the reform agendas becoming difficult to achieve. Accordingly, it may be obstructed or delayed. Hence, 'policy context plays an important role in setting the educational agenda, and determining whether school improvement will be successful or not' (Hopkins, 2001, p. 179). Hopkins discusses what he calls an 'unfortunate paradox that inhibits policy initiatives from realizing their aspirations' (179). However, the implementers cannot be blamed for the failure of a policy not only because it is imposed, but also because of the complexities of the change processes. Fullan (1993) rules out both approaches and suggests that capacity-building and participative planning reduce unpredictability, avoid misinterpretation and create a shared vision. This takes the discussion back to the beginning of this section where it is stated that culture can influence policy. Once it is accepted that a shared vision is important for the success of the

¹ Reynolds gives four reasons for this: a) there is a British view that teaching is an art, thus, idiosyncratic, b) teaching is a simple technology, c) unwillingness to confront the issue of teacher-variation, and d) researchers of school effectiveness celebrated the school level not the classroom (Reynolds, 1999, p. 72).

reform, then there is already an opportunity for the individual and institutional culture to influence the change policy.

The change policy and the condition for successful change:

Theories of educational reform are diverse¹. Yet, the initiation, planning and implementation of reform can be seen within three perspectives or approaches: i) the 'top-down', ii) the 'bottom-up', and iii) the collaborative (participative). Since the government in Oman assumes responsibility about education and about the well-being of its citizens, it opts for the 'top-down' approach. Policies and projects are initiated and planned at the top levels of the power hierarchy. Fullan (1993) mentions that in the past, large-scale structural educational solutions in many Western countries were also top-down. He suggests the following context of change if they are set to succeed:

A world where change is a journey of unknown destination, where problems are our friends, where seeking assistance is a sign of strength, where simultaneous top-down bottom-up initiatives merge, where collegiality and individualism coexist in productive tension (Fullan, 1993, p. x)

Fullan (2001) contends that large-scale reforms are fruitful in terms of the likely changes that they bring but that they require certain conditions in order to succeed:

[in times of reform] governments can push *accountability*, *provide incentives* (pressure and support), and/or foster *capacity-building*. We will see that if they do only the first and the second they can get results that, I will argue, are real but not particularly deep lasting. If they do all three they have a chance of going the distance (Fullan, 2001, p. 220).

He goes on to argue that many governments have put 'their eggs in the accountability basket' but that few were successful in combining pressure and support, and none has seriously affected capacity-building. Fullan mentions eight lessons for harnessing the forces of change. Whilst Fullan (2001) recognises the fact that politicians and policy makers have an obligation to set policy, establish standards and monitor performance, he claims that they cannot mandate what matters. In other words, the success of reform should be based on a culture of collaboration between policy and practice. From his perspective, what matters most for achieving complex educational goals are skills, creative thinking, and committed action, which cannot be mandated (p. 22). Hence, centralised or top-down policies alone do not work, as one cannot mandate what matters. Indeed,

This paper tests this argument in the Omani context where many reform policies and projects are taking place. School leaders were asked to answer this question:

Do endorsed policies and programs by the Ministry of Education get implemented at the regional and school level?

To find the answer for this question the open questionnaire was distributed among 30 participants. 11 out of 30 give a negative answers. They give varied reasons for the failure of implementation ranging from lack of incentives, don't serve the education objectives, don't stem from the education field but based on theoretical studies far away from the reality, ambiguity, no enough budget, the implementation process is not understood One states that some policies and programmes are not implemented because from his/her perspective they don't serve the education objectives. The respondent says '*some programmes are not*

implemented because they don't serve the aims of education and what is applied is only to comply. For unfortunately, when we send comments as raised by the education field they are not taken into account and the policy development stage'. Such comments show the disjuncture between policy formulations and policy implementation. The other 19 respondents indicate modest form of implementation but contend that in most cases it is either artificial, short term and does not lead to the same results as planned. Their justifications is that most policies and programmes fell short of being fully implemented, slow in its implementation as the implementations plans are not clear in the minds of those who implement. One gives an example of a project about child centered leaning that had started in strong motion and stopped at a later stage. Another agrees that "the Ministry exerts efforts in formulating policies, planning and developing programmes, yet implementation depends on the personnel whether to implement or not". Other respondents believe implementation depends on school leaders' understanding of the policies. While other respondents equate implementation with systematic Ministry follow up. While a sizable group of respondents refers incorrect or shortfalls of implementation to the lack of orientation, self development and training. Majority of them believe that hazardous planning and unclarity. The respondent says "What is not based on planning don't wait for it to be implemented correctly. There are a number of policies implemented without a clear study and without taking the opinion of the field. Therefore, don't expect they will be implemented correctly. There are many programmes endorsed by the Ministry and not implemented correctly. As a result, their outcomes are not fruitful and results in money loss".

The findings in this study supports findings in the literature that the effect occurs in most cases at the surface level, implemented for short term and discontinue or are not deeply instilled to the degree that new practices become simultaneous. The reasons are similar to those claimed by Fullan above in terms of underestimated orientation and capacity building, lack of follow up and support, ambiguity and lack of involvement of the implementers at the planning stage..

The effect of change policies and programmes on the individuals' behavior and work culture:

Lieberman (1982) argues that the gulf between policy and practice stems from people's assumption about the nature of the social change process

But the lack of understanding of teaching, administering, and changing is also embedded in the assumptions people make about how social change takes place and those are affected by one's position as well as one's values. Unrealistic mandates have left schools devastated and frustrated by demands made upon them without the necessary conditions to help make them work (Lieberman, 1982, p. 250)e

Lieberman believes that the failure to provide contextual conditions for the change stems from a myth that paper statements, broad goals, and money can radically alter the way schools work'. In other words, they target the nomothetic (structural) dimension of the educational organisation. Similarly, Sarason (1982) argues that reforms world-wide tend to fail because they fall short of targeting a change of the organisational culture. Changes initiated in the structural dimension occur when the imposed change leads to changes in the individuals' behaviour as they need to conform to a new set of rules. When the imposed structures do not lead to behavioural changes, the change will fail.

Indeed, one's position and one's values are determinant of the acceptance or refusal what is imposed. To test the applicability of this finding in the culture of the Omani schools school leaders are asked to answer this question:

Do change policies and programmes cause changes in individuals' behavior and their

culture of work? Please explain:

Most of the respondents state similar contention to this representative statement by one of them *“It is relative because both programs and policies affect some individuals and others may not be affected by them. It’s all about the way each individual deals with these programs and policies. Do they think of them as something that exists but yet do not make any difference?”*.

At least six out of thirty answered no and give the following explanation:

- No changes and the results were worse especially (the promotion system for teachers)
- No, because communication between schools and families doesn’t exist (its very poor)
- Not necessarily, especially if those policies and program were not well-studies and they don’t fit with the educational field
- No positive changes have occurred and the only change was a negative one
- They don’t make any difference because there is nothing that stops teachers from behaving in such way like a sanction or a deterrent
- Occasionally but mostly the change doesn’t occur because individuals aren’t persuaded by this behavior

In addition, there is only one or two answer from the remaining twenty four that indicates a positive behavioural change. *“Yes, especially if it was clear and detailed .also, if follow-up and reinforcement existed”*.

The rest of the responses report slight or conditioned changes reasoned by a set of factors as reported in the answers for the previous question above:

- Yes ,if its useful and actually aims at the individual’s needs regarding changes in behavior and culture
- The changes occur but with a slightly small percentage because they aren’t persuaded by those policies and because of the negative attitude they have regarding the educational policies
- Sometimes, the staff of the schools refuse those programs because they mean more work and burden
- Yes, the change occurs if there were long-term goals that serve school staff and they were implemented according to their capability
- Yes, these programs has an affect on both behavior and work culture of the staff
- Yes, especially if the programs were beyond their capabilities and they cause a sort of extra effort
- We still need stimulation ,so that we can see the change
- Yes, the best evidence to mention would be the amendment of the assessment system which resulted in getting the community’s attention and encourages students to pay attention as well
- Yes, especially if they are positive programs and serve the individual’s needs
- Yes, but the impact of this change is limited
- They cause changes in individual’s behavior and work culture but mostly the individual will implement what s/he are persuaded by and ignores that doesn’t suits him/her because all of these programs and policies were imposed on him/her and because they were not a part of the team that develop these programs and policies
- Yes, the change occurs with those individuals who have the capability and devotion but with the fact that lots of teachers don’t have the willingness to join their jobs as teachers, so the change in individual’s behavior isn’t expected
- Of course there would be a change if they were clear and standardized and the individual has sufficient awareness about these programs
- It’s expected that these programs and policies will change the behavior and work culture of individuals and the change will be to the better especially if they were clear and specific because they are supposed to change their attitude to the policy they are required to follow

- Yes ,those programs cause changes because of the connection between policies and programs and their work (school staff)in schools
- It depends on the applied policy and individuals who apply and the policy application scope
- Both positive and negative changes occur on both individual's behavior and work culture
- Yes ,when it is based on facts that have to do with the individuals ,their communities and their culture because the educational policy emerges basically from the philosophy of society and individual ,so any policy that has been well-revised would definitely cause a change in the individual's behavior
- Yes, but they should be accompanied with annual training program especially with the large number of newly-hired teachers every year

These statement give proof of rare cultural and behavioural change as a result of change policies and programmes. Yet, the bottom up approach cannot be the sole solution. It has pitfalls as well. Researchers (Sarason, 1982; Hoyle, 1986; Fullan, 1992; Fullan, 2001) believe that change (particularly simple restructuring) may become assimilated in the organisational old practices

The 'bottom-up' approach maintains that reform is more likely to succeed when it stems from inside the organisation and is gradually originated by an innovative person(s), groups, and then by the whole organisation (Hoyle and McCormick, 1976, pp. 10-11). However, this gradual approach to change cannot guarantee success. It is seen by researchers (Guskey, 1995; Fullan, 1992; 2001) as vulnerable to assimilation by old practices. In addition, bottom-up initiatives may lack the political attention, encouragement and even resources. Fullan (1993) suggests that both centralised and decentralised initiatives may fail. In his perspective, the former cannot mandate what matters and the latter leads to chaos. Thus, he calls for a third approach (collaborative reform planning and implementation), which involves the political power and the organisation so that there is a shared vision. He argues that the problem does not lie with whether the reform is 'top-down' or 'bottom-up', but with issues such as:

The way that teachers are trained, the way that schools are organised, the way that the educational hierarchy operates, and the way that education is treated by political decision-makers results in a system that is more likely to retain the status quo than to change. When change is attempted under such circumstances it results in defensiveness, superficiality or at best short-lived pockets of success (Fullan, 1993, p. 3).

He suggests that what is needed is a new mindset which recognises the importance of the learning organisation for the improvement of the educational process. This implies that there is a need for a new reform policy and organisational culture, which are based on capacity-building.

Majority of the respondents in this study refers failure of change to lack or orientation, training and Ministerial follow up and support. This suggests that here is a common perspective that reform, as 'cultural transformation', is rarely the case in education systems which are described as conservative. Transformation seems to depend on the interaction between the structure of the organisation (which includes the physical structure and other mandated aspects such as roles, goals and expectations, and the idiographic dimension which includes the individual, his/her personality and his/her needs. Al-Farsi, 1994) argues that the interaction between the two determines whether there will be cultural change or not. Al-Farsi (1994) provides a version of Getzels and Guba's model. She argues that the interaction between the normative dimension and the idiographic dimension produces a third dimension, which is called the transactional dimension.

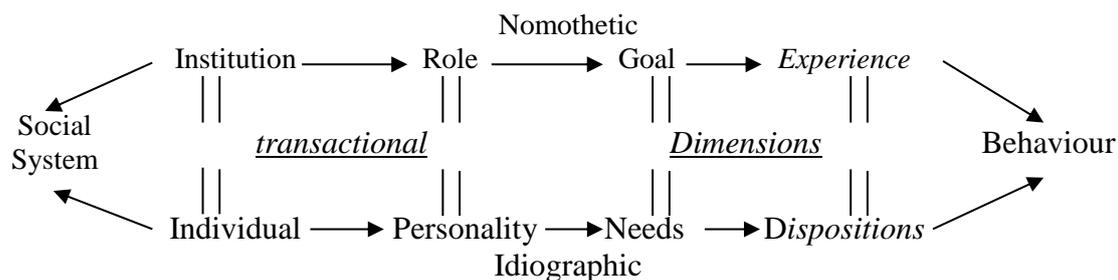


Figure 1: Getzels, and Guba's model for social systems (Al-Farsi, 1994, p. 112).

Since change may cause turbulence to the social system in the organisation, there will be tension caused by the mandated structure. These perspectives relate the possibility of cultural change to how it is perceived. In this respect, Meyerson and Martin (1997) identify three cultural paradigms. They use the term 'paradigm' in this context as 'alternative points of view that members and researchers bring to their experience of culture' (p. 31). According to this perspective organisations are either, a) resistant to change, b) incrementally adaptive, or c) continually in flux. Paradigm 'a' perceives culture as shared and unique to a given organisation. Within this paradigm, change could either be superficial manifestations or rooted in deep assumptions. Change here is revolutionary - a monolithic process or an organisation-wide phenomena. Schein (in Meyerson and Martin, 1997) recognises three stages in the individual or organisational change process: a) a temporary lapse in denial of ambiguity where organisations and individuals experience an unfreezing stage (Fullan, 1992 calls this the 'uncertainty stage'); b) adoption of change; c) the refreezing stage where the new behaviour and attitudes are internalised.

Summary:

This paper has discussed the dialectical relationship between imposed change and organisational structure and culture. There is an agreement amongst sociologists that two main dimensions exist in any organisation. The first deals with the structure and the norms that govern the working of the organisation. This dimension is easier to change because its issues can be legislated. The other dimension is the idiographic or the expressive dimension, which includes the individuals, their personalities, needs and their dispositions.

The respondents from the Omani context express contention that there are causes hinder the implementation of endorsed policies and programmes related to ambiguity, lack of follow up, lack of orientation, relevance to the field and to individuals personal attitudes. They think that once these causes and others mentioned throughout the paper then change can succeed. The results give a feel that there is a welcoming culture for new initiatives once the field's concerns are taken into account.

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Teacher Training in Post Compulsory Education: Maximising Trainees' Capacities to Learn within the Conditions and Constraints Presented to them



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Abstract

The aim of the study was to explore factors that influenced the learning experiences of a group of trainee teachers who were enrolled onto an initial teacher education award in the Lifelong Learning Sector (LLS).

This LLS initial teacher education award was accredited by a medium sized U.K. university located within an urban, high unemployment area, in the Midlands (UK). Trainees taught students in post compulsory educational settings (colleges and other vocational educational training (VET) locations).

An interpretative, case study, multi-method approach was used to gather data from 327 trainees, twelve of whom volunteered to be interviewed. Other data was gathered from interviews with eleven teacher educators, questionnaires distributed to all 327 trainees, data drawn from the university's Information Service Department and from the journal entries kept during the time of the research.

The findings focus around four themes;

Diversity: trainees are very diverse and come from many differing backgrounds and workplaces.

Identity: trainees find it difficult to make a transition from their first career to that of a teacher.

Conditions of learning: government and organisational policy can restrict rather than enhance trainees' learning.

Learner autonomy: trainees need to develop their capacity for learning.

Recommendations following these findings and emergent themes include providing a curriculum and associated strategies that engage trainees more fully in learning to learn and development as reflective professional enquirers and practitioners.

Keywords: learning, teacher trainees, VET

Context and focus of the research

The aim of the study was to explore factors that influenced the learning experiences of a group of trainee teachers who were enrolled onto an initial teacher education award in the Lifelong Learning Sector (LLS). This award was accredited by a medium sized U.K. university located within an urban, high unemployment area, in the Midlands (UK). Trainees taught students in post compulsory educational settings (colleges and other vocational educational training (VET) locations).

Three objectives were aligned to the study's aim; i.e.

1. To explore, identify and analyse the conditions and constraints in which those in the Case Study group were placed and how these influenced their learning experiences.
2. To 'understand the nature of the workforce' in order to be able to provide them with the skills necessary to deliver world class education (DfES 2004).
3. To identify the themes, issues and tensions that emerged from the study in order to share information with relevant others and to inform and target action to improve future trainees' learning experiences.

Data collection and method

The aims and objectives for the research influenced the decision to use a multi-method, triangulated, interpretivist approach for collecting both qualitative and quantitative data from multiple sources. Bias and ethical considerations were paramount throughout the process; as were credibility and confirmability, dependability and transferability (Lincoln and Guba 1985).

Data was gathered from;

- interviews with 12 trainee teachers
- interviews with 11 teacher educators
- responses from 77 (24%) trainees (from a group of 327), via questionnaires
- the University's Information Services (I.S.)
- other literature

The information gained from this study, while recognising the limitations and transferability of a single case study (Denscombe, 1984) is, due to re-modelling and/or de-regulation (Lingfield, 2012) one (study) of a limited kind. This, in itself, gives this study important historical relevance, particularly, as other similar study, although available, is limited (Orr 2009, Coffield 2008) and any shifts in political and/or institutional narratives could be informed by these collective findings.

In order to gain their experience most trainees are employed as full or part-time teachers within the LLS and a few work as unpaid teachers. Trainees taught students in post compulsory settings (colleges and other training locations) and deliver either academic or VET programmes. Within these environments there are around 200 different subjects taught that range from hairdressing to history and plumbing to philosophy (Crawley, 2005, cited in Eliahoo 2009) and learners are taught across a range of ages (post 14) and abilities from pre-entry (below a level 1) to higher education (level 7).

Theoretical context

An emergent conceptual framework has been used in order to support the research topic and subsequent findings. However, as noted by Coffield (2008, p25) the LLS is an area that is ‘woefully under-researched.’

Amongst other work, significant literature that has been used to provide some theoretical frameworks around the emergent findings includes the work of Orr (2008, 2009, 2012), Orr and Simmons (2009, 2011), Avis and Bathmaker (2004, 2006), Coffield et al (1996), Elliott and Hughes (1998), Huddleston and Unwin (2002) Lave and Wenger (1991, 2003), Harri-Augstein and Thomas (1991) Eraut (1994, 2007) and Schön (2002).

This literature, which discusses notions of professionalism, identity, reflective practice, situated learning, communities of practice, self organised learning and the value of structured learning conversations, has been reviewed and has been aligned and cross-referenced to the research findings.

A policy context for the research

Social, political and economic considerations by successive UK governments during the 1980s and 1990s highlighted the need to transform initial teacher education within the LLS and in 2007 a Sector Skills Council (SSC); namely Lifelong Learning UK (LLUK) introduced a set of regulatory teacher training standards which *recommended* that teachers employed prior to 2001 become qualified but all teachers who had been employed after 2001 *had to* become qualified by 2011. Teachers employed after 2007 were required to become qualified within five years of their commencement of employment. A further requirement was for all teachers, regardless of when they were employed, to become members of the Institute for Learning (IfL) which was a professional body set up to regulate and to serve the needs of its members, i.e., teachers within the LLS (BIS, 2012).

Many Department for Education and Skills reports (DfES), for example, Success for All, (2002), Equipping Our Teachers for the Future (2004), Foster Report (2005), Raising Skills Improving Life Chances, (2006) and the LLUK’s Workforce Strategy Report, (2009) all stress the impact that good teaching will have on learners which, once the learners enter the workforce, should subsequently improve the UK’s national and global economy and provide the opportunity for prosperity for all (Leitch Review, 2006).

These reports set out a vision of what initial teacher education should achieve and have also been instrumental in the introduction of the LLUK (2007) standards but research. However research indicates that the standards have neither improved trainees’ experiences nor have they necessarily transformed practice (Lucas 2004, Lucas et al 2011, Maxwell 2010, Lingfield 2012).

Findings

The key themes that have emerged were:

- trainees were from very diverse backgrounds;
- trainees’ perception of themselves as trainers, teachers, trainers varied;
- political and organisational conditions and constraints impacted upon trainees’ learning experiences;
- very few trainees engaged in high levels of reflective practice;

- trainees valued the work that they did with their peers and the supportive community which evolved from the formal DTLLS classroom-based sessions;
- trainees did not necessarily recognise their learning needs, i.e. how to learn and what it was they needed to learn in order for them to develop themselves as practitioners and professional enquirers;
- trainees' reasons for enrolling onto the Award varied;
- trainees thought that the Award was over-laden with assessment criteria;
- trainees would value a more focused, timely and contextualised approach to linking theory to practice;
- trainees had grown in confidence about their ability to teach and to engage with their learners; although this confidence may have related to an improved ability to cope in the classroom rather than in their ability to teach (pedagogical development).

Each theme is worthy of further independent study but following a systematic descriptive and analytical coding and categorising process four main themes emerged:

Diversity: trainees are very diverse and come from many differing backgrounds and workplaces.

Identity: trainees find it difficult to make a transition from their first career to that of a teacher.

Conditions of learning: government and organisational policy can restrict rather than enhance trainees' learning.

Learner autonomy: trainees need to develop their capacity for learning.

Recommendations and conclusions

Collectively the complexity or 'messiness' (Orr 2009) that surrounds initial teacher education within the LLS concludes that the focus should be on harnessing trainees' diversities more fully and ensuring that trainees' transitions to teachers are more fully supported by a curriculum that enabled trainees' to contextualise the current generic curriculum that is offered through the LLUK teacher education model. Overarching these suggested strategies is the need for the trainees to develop their own skills for learning to learn so that they can thrive in, and beyond, a shifting, and unstable initial teacher education (LLS) landscape.

How might trainees' learning experiences be improved?

Initial teacher education within the LLS does not have a 'free hand.' It has to comply with government policy and to be responsive to the ever-changing socio-economic and political environments to which it belongs. However, this study raises similar questions to those within other study (Lucas et al, 2011, Maxwell 2010, Nasta 2007) about whether a single objectivist standards-based initial teacher model is sufficiently able to 'contextualise and deliver theory' in a timely manner to accommodate and to meet the needs of diverse groups of trainees (Thompson & Robinson, 2008, p 166).

In order for trainees to develop and thrive in their roles as self-organised, autonomous reflective practitioners and professional enquirers initial teacher education (LLS) needs to give greater prominence to learning strategies that take account of trainees' backgrounds, prior learning experiences and their motivations for enrolling onto the Award. Teaching and learning strategies need to incorporate models of learning that (further) acknowledge the strong sense of (different) identities that trainees have in order for them to have more

autonomy over their learning experiences. Doing this should encourage trainees to become aware of the processes that increase their capacity for learning, i.e. knowing what they need to learn and how to learn it (Harri-Augstein and Thomas, 1991, p26).

Developing strategies for learning

The arguably restrictive nature of a prescriptive, criteria-driven LLUK (2007) standards model can constrain trainees' abilities to be autonomous and reflective as well as shaping their 'notions of professionalism'. This adds to trainees' estrangement from, rather than engagement in, learning (Orr, 2011, p56) which in turn influences the quality of the trainees' learning experiences.

In order to develop their engagement in learning more fully trainees need be able to harness any tensions relating to environmental factors and any initial teacher education model presented to them rather than be subject to them. This is possible through trainees' development, or enhancement, of a purpose, strategy outcome, review approach which can be achieved using a 'three dialogue' model as offered by Harri-Augstein and Thomas (1991, p 22).

The first dialogue relates to trainees having reflective conversations with themselves (personal learning) about what their 'current reality' or situation is and what it is they want or need, i.e. what is their purpose and what strategies can be used in order to achieve an outcome related to that purpose.

For example trainees might need to:

- pass their assignments – strategies for this might be to learn how to use a specific type of computer software, engage in study skills to improve their ability to write using an academic style and/or managing their time better.
- learn more about a specific topic - a strategy for this might be to explore how to improve the use of discussion with others as a vehicle for learning.

The more skilled trainees are at this the more likely they are to recognise what it is they need to know before looking outwards towards others for support and advice. They become better at self-assessing their current abilities. While it is important to use external referents for advice and to aid the learning process if trainees place too much dependence on external motivators and judgements then it can become problematic. Too much dependence can result in trainees becoming estranged from their own learning (Harri-Augstein and Thomas, 1991, p23). This view aligns with Huddleston and Unwin (2002, p165) who maintain that through using a structured, self-evaluative framework trainees can identify their areas for learning and development.

The second dialogue has resonance with Lave and Wenger's (2003) notions of communities of practice. Trainees engage in conversation with subject experts in order to move their thinking and skill development forward. Therefore, initially they may be on the peripheral (Lave and Wenger, 2003) or outer circle (Harri-Augstein and Thomas, 1991). As trainees' knowledge and/or skills improve they become the 'experts' and move to the centre or inner circle of that particular community. Involvement with communities of practice is particularly important when trainees are experimenting with new ideas or when making transitions from craft to teacher.

Harri-Augstein and Thomas' (1991, p5) third dialogue refers to trainees' evaluating their performance using external referents (e.g. examination boards, observers, peers, mentors). Making their own judgement about their practice through self-assessment and the use of external benchmarks can aid trainees' motivation as they have more control and engagement within their own learning.

Using this approach enables trainees to learn to develop strategies to learn in the environments in which they find themselves, for example the 'restrictive' (Orr 2011), 'prescriptive' (Maxwell 2010) codifiable (Lucas 2011) environment currently associated with initial teacher education (LLS) or with any re-modelled version that emerges following the outcomes of the Lingfield (2012) recommendations. Content is more emergent than provided – it revolves around what trainees need rather than what an initial teacher education model (LLS) says they need, i.e. any system of initial teacher education should support the conditions necessary for trainees to learn rather than the trainees being compliant with the system.

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Effect of Andragogical Approach on the Academic Performance of Psychology Learners in Open University Malaysia (OUM)



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Abstract

The study is attempts to investigate the effectiveness of andragogical approach employed by tutors on academic achievement of adult learners. The objective of the study is to measure if there are any significant differences in the learners' academic performances due to the individual capability in delivering the subject content. The study is analysed by an independent- samples t-test which conducted to compare learners' score on the subject. This study initiated to compare the consequence of content delivery by two different background tutors. The samples chosen for this study are the second year undergraduates for the subject Abnormal Psychology in Open University Malaysia (OUM). The sample size consisted of 48 learners who were randomly assigned to experimental group and control group, each consisting of 24 learners. The two tutors chosen for this study are, a tutor of andragogical approach (Tutor A) who completed the nine modules of Postgraduate Certificate in Open and Distance Learning (PGCert ODL) which involve a total of 400 learning hours preparing her for effective andragogical teaching skills for adult learners. The Tutor A is consigned as experimental group, while Tutor B is assigned to be in control group and was teaching the subject for the past 7 years without any certificate in teaching in open and distance learning skills. At the end of the semester, both of the groups were tested with a set of subjective test to measure their understanding and knowledge of the subject. The findings showed that there was a significant difference in the scores for experimental group ($M=57.17$, $SD= 14.12$) and control group ($37.92,SD=10.35$), $t(23)=9.25$, $p= 0.001$. These results provided evidence that learners taught by andragogical approach consumed by Tutor A showed better score as compared to the control group. The vital outcome of the study is that a tutor with familiarity and trained in teaching in open and distance learning extent would be able to deliver the content effectively. It is proven that steps taken by OUM to progress internal academics had given a rewarding outcome in terms of learners' academic achievement.

Key words: Andragogical; Adult learning; Academic achievement, Content delivery

The study is attempts to investigate the effectiveness of andragogical approach employed by tutors on academic achievement of adult learners. The objective of the study is to measure if there are any significant differences in the learners' academic performances due to the individual capability in delivering the subject content. The study is analysed by an independent- samples t-test which conducted to compare learners' score on the subject. This study initiated to compare the consequence of content delivery by two different background tutors. The samples chosen for this study are the second year undergraduates for the subject Abnormal Psychology in Open University Malaysia (OUM). The sample size consisted of 48

learners who were randomly assigned to experimental group and control group, each consisting of 24 learners. The two tutors chosen for this study are, a tutor of andragogical approach (Tutor A) who completed the nine modules of Postgraduate Certificate in Open and Distance Learning (PGCert ODL) which involve a total of 400 learning hours preparing her for effective andragogical teaching skills for adult learners. The Tutor A is consigned as experimental group, while Tutor B is assigned to be in control group and was teaching the subject for the past 7 years without any certificate in teaching in open and distance learning skills. At the end of the semester, both of the groups were tested with a set of subjective test to measure their understanding and knowledge of the subject. The findings showed that there was a significant difference in the scores for experimental group ($M=57.17$, $SD= 14.12$) and control group ($37.92,SD=10.35$), $t(23)=9.25$, $p= 0.001$. These results provided evidence that learners taught by andragogical approach consumed by Tutor A showed better score as compared to the control group. The vital outcome of the study is that a tutor with familiarity and trained in teaching in open and distance learning extent would be able to deliver the content effectively. It is proven that steps taken by OUM to progress internal academics had given a rewarding outcome in terms of learners' academic achievement.

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Introduction

Open and distance learning provides the opportunity for adult learners to excel and enhance their competency in order to achieve their full potential. In addition, adult learners would be able to apply pertinent knowledge and skill they gained to secure a flourishing future. In making adult learners dreams come true, the Open and Distance Learning (ODL) was introduced .It refers to the learning approaches that focus on liberalize learners from constraints of time and place thorough flexible learning platforms. For many learners, open and distance learning is a way of combining work and family responsibilities with educational opportunities (United Nations Educational (UNESCO) (2003).The current education trend which largely promotes distance learning is due to the development on the ease of accessing and flexibility that ODL can offer the learners. Gaining knowledge through a delivery and communication patterns as well as the use of various technologies to support ODL has given the adult learners a second chance. Unlike conventional way of learning, the delivery mode refined using a variety of electronic systems either through synchronous communication (learning in which all parties participate at the same time) or through asynchronous communication (learning in which parties participate at different times). The main systems are mediated by correspondence, audiovisual means (television and radio), multimedia (audio and text files), and the Internet (UNESCO, 2003).

The Internet has provided universities opportunities to offer greater access and presents increased access to a broader spectrum of adult learners. Larger populations of adult learners will obtain access to higher learning over the internet because of less time available to busy working parents who want to get a college degree (Rosenberg, 2001; Carnevale, 2005). The online format forces the learners to begin the learning process instead of sitting in a face to face classroom and waiting for the content to be delivered in writing or through lecture and discussion (Wojceichowski & Palmer, 2005). Adult learners see online programs providing new opportunities and preventing a short or even long distance commutes to attend a class because they can remain in their homes or workplaces and they can participate in learning activities, interact with most of the people in class, and exchange information each other (Maguire, 2005). However, technology alone, no matter how exciting, does not automatically improve the learning process, as Billings, Connors, and Skiba (2001) emphasised when reporting the benchmarks of best practices for Web-based teaching. For the

learning to be effective, the focus must be on the andragogical goals of teaching and learning. Such findings indicate that the learner-centered goals of the course or programme should be a major consideration for the use of technology to be effective in learners' learning.

Knowles' theory of andragogy is an effort to expand a theory particularly for adult learning. Knowles emphasises that adults are self-directed and will always look for the reason behind the learning. Adult learners, according to the andragogy theory, approach learning as problem solving and expect the immediate value. Adult learning programmes must accommodate this fundamental aspect. The growth and development of andragogy as an alternative model of instruction has helped to improve the teaching of adult learners. The reason is that as the adults are mature, they become increasingly independent, responsible for their own actions and often motivated to learn by a sincere desire to solve immediate problems in their lives. In many ways, the pedagogical model does not account for such developmental changes on the part of adults, and thus produces tension, resentment, and resistance in individuals (Knowles, Holton, & Swanson, 2005). Andragogy is an approach to learning that is problem-based and collaborative rather than didactic, and also emphasises more equality between the teacher and learner (Smith, (2002). According to Mezirow (1991), an adult educator must assist the learners in defining their learning needs and objectives, planning their learning program, and evaluating their progress. The learner needs the educator to assist them in achieving the goal of their study. The goal of adult education is to cast the learner to become a critical thinker, to teach them how to apply their experience in relation to the theories and how to relate the theories into experience. Thus, helping adults elaborate, create and transform their meaning schemes of beliefs, feelings, interpretations, and decisions through reflection on their content, the process by which they were learned, and their premises such as social context, history, and consequences is what andragogy is about.

The major problem facing by many tutors or educators who deal with adult learners is how to promote the learning, coping, and adjusting necessary for or related to age-associated change. Yet, inadequate preparation for such teaching tasks, individual differences among older people in terms of learning needs or skills, and an abundance of stereotypes regarding older adult learning abilities serve as barriers to successful delivery the teaching. Applying the andragogy teaching approach has an impact on the method of facilitation, the delivery of the instruction, and learning environment among adult learners. Siebert explains that the focus at the beginning of the class either face-to-face or online should be on the learners, their concerns, and their experiences and not on the content of the syllabus or course material. This allows for the learners to develop a more positive attitude toward the course and the educator (Siebert, 2000). Siebert (2000) further states that research has shown that adult learners do better in courses where instructors tend to create a relaxed and safe atmosphere, accommodate different learning styles, present information using both visual and auditory methods, recognise adult learners' uniqueness, validate cultural differences, let learners influence course coverage, match teaching method to content, build on learners' experience, encourage self-motivated learning, include team learning projects, avoid setting up competition, support theory with real-life examples, make learning environment become more interactive, and provide frequent positive feedback. Andragogical approaches require a psychological climate of mutual respect, collaboration, trust, support, openness, authenticity, pleasure, and humane treatment, and that it is the responsibility of the facilitator to provide a caring, accepting, respecting, helping social atmosphere (Pratt, 1993). This suggests that the essence of facilitation lies not in one's approach as much as in the relationship that exists between learner and educator. However, not all academicians wish to teach adult learners or are even capable of providing the necessary support learning. For some academicians, they are never taught how to teach but they are hired because of their subject matter expertise. Therefore, they need to receive some education on providing their

adult learners with learning opportunities. According to Tannehill, (2009), the training of faculty members on the concept of andragogy and the characteristics of the adult and the application of this knowledge to the learning may be comprised of seminars, both in the classroom and online, that introduce the concept of andragogy and the characteristics of adult learners. These training sessions should not simply convey the concepts but should be delivered based upon the concept of andragogy. Therefore, they must be interactive, must offer the opportunity for application, need to engage speakers who are experts in teaching adult learners, and must allow the participants to use their experiences as learning opportunities. Immediate feedback needs to be provided to the participants. Furthermore, they should be provided with a comfortable and supportive learning environment. If the course is held on ground, the classroom should be arranged in an interactive manner and not set up for lecture. If the course is offered online, it must not be simply text but must include discussion questions that allow for interactivity, real world application, and facilitation.

Significant of the Study

Many adult educators who find themselves in a situation of needing to organise some sort of learning activity for adult learners have had no formal preparation for teaching the adult learner (Knowles et al. 2005). Thus, a problem often centers on how best to organise and present necessary information to insure maximum learning. The questions about appropriate teaching techniques, how to structure the learning experience, concerns toward learner needs and learning inhibitors, and how to evaluate progress are some of those undergirding this problem. By training the faculty members to deliver their content as suited to the learner, the experiences for both faculty members and learners will be highly rewarding. The common theme in the classroom delivery and content design needs to be that adults desire to be active participants in their learning process. They want to use the experiences they have to anchor the new concept being taught. Furthermore, adult learners need to understand how to apply the new concept into their real world situations as they are also wish to engage with their faculty members in a relationship of mutual respect. Thus, the roles of the learner and the university, programmes designed for the adult learner should have particular characteristics that will enhance the learning experience of the adult learner (Tannehill, 2009).

Adults learn differently from younger students. Adults have special needs as learners and these needs should be taken into consideration when providing classes for adults. Therefore, this study is important as it is lack of researches and less of development in understanding adult learners' academic performance from the perspective of andragogical approach employed by educators. Therefore, OUM tends to take an initiative to provide assistance to its academicians by creating training materials on teaching adult learners. These training modules covered the information on the characteristics of the adult learner, facilitating adult learning success and designing programs, designing instruction, and needed resources. Thus, this study was to examine the effectiveness of andragogical approach designed by OUM enhanced the academic performance of adult learners.

Literature review

Learning is an interactive process for both children and adults but the distinction of adult education is that the student brings a rich array of previous experiences and demands

practical application for the education process (Tweedell, 2000). According to Mezirow (1991), an adult educator must assist the learners in becoming less dependent upon the educator by teaching them how to utilise learning resources, particularly the experiences of their fellow students, and by engaging in reciprocal learning relationships with others beyond that of the educator. Applying the principles of andragogy to the classroom has an impact on both the faculty member's method of facilitation, the delivery of the instruction, and the classroom environment. Therefore, faculty-training programmes should be designed to assist the faculty in understanding adult students and in learning how to interact effectively in the classroom. Shankar (1994) suggests that a faculty member familiar with the principles of andragogy be appointed to assist other faculty in understanding the differences between instructing traditional students and nontraditional students. Tannehil (2009) suggests that training faculty members on the concept of andragogy and the characteristics of the adult and the application of this knowledge to the classroom setting should be supported by the entire institution. Training may be comprised of seminars, both in the classroom and online, that introduce the concept of andragogy and the characteristics of adult learners. These training sessions should not simply convey the concepts but should be delivered based upon the concept of andragogy.

Siebert (2000) found that teaching adult learners requires more advanced teaching skills and that a skillful instructor develops strong intrinsic interest in the course by connecting each student's plans for the future and past experiences with the course material. Some institutions do provide assistance to their faculty members by creating training materials on teaching adult students. California State University's (CSU) Institute for Teaching and Learning created a publication entitled, "Helping Adults Learn Facilitator's Guide" in 1989 as a guide to assist higher education faculty and staff in promoting greater access and success for adult learners in higher education. The CSU Institute created four modules believed to be areas in which faculty needed to have more knowledge. These modules included information on the characteristics of the adult learner, facilitating adult learning success and designing programmes, designing instruction, and needed resources. By taking the concept of andragogy and the characteristics of the adult learner, the CSU Institute found that the classroom may be set up to provide adult learners with a rich educational experience and by training academic faculty members to deliver their content as suited to the learner, the experiences for both faculty members and students will be highly rewarding (Tannehill, 2009).

Institutions need to consider the perhaps special needs of the adult students if they are to assist them in completing their intended course of study. A study conducted by Shankar (1994) interviewed adult students on their thoughts regarding attending college. The findings showed that adult students believe the following: curriculum is designed with the traditional student in mind, course assignments are not designed with consideration to their needs, they often feel socially isolated, the classroom equipment and technology sometimes present problems, adult students prefer having more control in the direction of their education, and, finally, that faculty are difficult to interact with because of their preconceived ideas surrounding education (Shankar, 1994). Therefore, it is suggested that institutions need to redesign many of their systems, taking into account the needs and desires of the adult students and need to provide training for its academic staff.

As has been previously stated, to be effective in face-to-face and online classroom, academic faculty members must be trained. Therefore, based on Knowles's Andragogy theory as stated in Table 1, a certificate level course, which is known as the Postgraduate Certificate in Open and Distance Learning (PGCert in ODL), has been developed by Open University Malaysia (OUM). The main objective of this programme is to provide the

opportunity for academic staff to learn and expose to the effective strategies for helping adults learn.

Theoretical and Conceptual Framework of the Study

The theoretical framework for this study first was based on the theory of Andragogy developed by Knowles (1990). The theory proposed a learner centered approach and the key to adult learning is to allow learners to direct themselves through the instructional process by integrating new and relevant information with their working and previous experiences. Second, this study was also based on Billings, Connors and Skiba (2001) studies in which, learners' knowledge is influenced by teaching methods and the design of Web-based teaching materials. According to Billings et al. (2001), in order to make Web-based learning effective, instructors or educators must provide more guidance to learners and encourage learners' active learning. According to Rouse (2000) and Buckley (2003), computer-assisted instruction is as effective as traditional classroom lecture. Thus, instructors or educators must be able to devote enough time to guide the learners and to motivate them to learn using online courses.

Knowles' theory takes a learner centered approach with five areas: the learner, the learner's experience, readiness to learn, orientation to learning, and motivation to learning (Bash, 2003). The learner as adults are self-directed learners who are anxious to demonstrate that they are taking responsibility for themselves in the learning process; the learner's experience assumes greater volume and different quality since the learner has had a variety of work and life experiences and even previous educational one (Bash, 2003). Readiness to learn means that the adult learner becomes ready when they experience a need to know or do something; orientation to learning refers to the curriculum that should be life-centered, task-centered, or problem centered and should focus on life situations; and, motivation to learn which for adult learners, is internal as they are looking for increased self-esteem, recognition, a better quality of life, and greater self-confidence (Bash, 2003)

Defining the characteristics of adult learners, Knowles stated that since they are autonomous and self-directed, they are relevancy oriented and tend to feel that they must see a reason for learning something or understand the connection between the learning event and some aspect of their life which means that the learning has to be applicable to their work or other responsibilities to be of value to them (Bash, 2003). Adult learners have accumulated a foundation of life experiences and knowledge that may include work-related activities, interest-based activities, family responsibilities, and previous educational experiences. Adult learners are also practical and may not be interested in knowledge for its own sake, at least in the beginning, and finally, all learners but particularly adult learners express the need to be shown respect, expect to be treated as equals based upon their experience and understanding, and assume that they will be allowed to voice their opinions freely in class (Bash, 2003). Knowles (1989) made some distinctions regarding the differences between pedagogy and andragogy and these are detailed in the following table.

Andragogy is an attempt to build a theory of adult learning anchored in the characteristics of adult learners (Smith, 2002). Knowles' insights into adult learning and the educating of the adult student are important to those who develop programs for adult learners and those who teach those learners. Knowles was the first to chart the rise of the adult education movement in the United States, the first to develop a statement of informal adult education practice, and the first to attempt a comprehensive theory of adult education via the idea of andragogy (Smith, 2002). The concept of educating the adult learner requires an understanding of much more than the learning process. In order to create a comprehensive

learning experience, it is necessary to understand how adults learn, what they are interested in learning, and where they learn (Merriam, 1993).

This study was also based on the Billings, Connors, and Skiba (2001) in which proposed that adult learners see online programs providing new opportunities and preventing a short or even long distance commutes to attend a class because they can remain in their homes or workplaces and they can participate in learning activities, interact with most of the people in class, and exchange information each other. Of the 219 students who participated in the study, 90% were females, 24% of the students were age 20 to 29 years, 34% were age 30 to 39 years, 34% were age 40 to 49 years, and 7% were over 50 years of age for online Nursing programmes. The study found that Web courses to be more active for adults than younger students in which, there are differences in online interaction among younger students (20-29 years), who were less likely to interact with their peers than those students who were older (40-49 years and over 50 years). Therefore, for the learning to be effective, the focus must be on the andragogical goals of teaching and learning. Such findings indicate that the learner-centered goals of the course or programme should be a major consideration for the use of technology to be effective in learners' learning.

Therefore, based on Knowles's Andragogy theory as stated in Table 1, a certificate level course, which is known as the Postgraduate Certificate in Open and Distance Learning (PGCert in ODL), has been developed by Open University Malaysia (OUM). The development of PGCert in ODL programme that based on Knowles' Andragogy theory helps to enhance the professional practices of people responsible for the development, implementation, and evaluation of adult education and training programs. It also helps to develop an understanding of, and the ability to apply the concepts, principles, and practices involved in the development, delivery, and evaluation of learning experiences for adults. This programme also to develop skills in planning, managing, teaching and evaluating programme, coordinate and facilitate training programme for adult learners. This one-year course is open to all full time academicians in OUM who wish to develop their skills in ODL. There were nine modules with 10 credit hours total which are involved a total of 400 learning hours including face-to-face sessions, online discussions in OUM's my Virtual Learning (myVLE) platform and assignments as well as preparing for the assessment for each module. Participants were assessed for each module and assessments varied depending on the outcome to be achieved with each module. The respective Subject Matter Experts (SMEs) were facilitated the delivery of their modules. This programme is a momentous one in order to help the participants to improve their capability in teaching adult learners. The applicable Andragogy theory is practiced throughout these modules and made attentive assumptions in that Andragogy theory that was put in practice in the design of this training programme.

1. Face-to-face Instruction
2. Online Facilitation in the ODL Environment
3. Assessment
4. Instructional Design for Development of Learning Materials
5. Development of OUM Printed Module
6. Development of OUM Web-based Module
7. Basic Research Knowledge and Academic Writing Skills
8. Programme Evaluation

Table 2: The list of nine modules offered in the Postgraduate Certificate (PGCert ODL)

Statement of the Problem

Although open and distance education is more adaptable to the needs of adult learners, one of the challenges is to meet the needs of the learners while escalating and sustaining enrollments. Adult learners are more assertive than younger students and they may be reluctant to spend time and energy on any assignment or task that does not offer them some additional benefit (Bash, 2003). In addition, an adult who sets an educational goal to complete a degree in a three to five years in ODL discovers this can be a challenge vulnerable to assault by life's activities and stresses (Bocchi, Eastman, & Swift, 2004; Murray, 2001). Then, a problem of attrition has always been an issue. Attrition is the dropout rate or non-compliance rate in which learners who had enrolled in a course but do not fulfill all the course requirements nor complete the course. Thus, the challenge is to retain these learners. The concept of educating the adult learner requires an understanding of much more than the learning process. In order to create a comprehensive learning experience, it is necessary to understand how adults learn, what they are interested in learning, and where they learn (Merriam & Brockett, 2007). The educator must be responsive to adult learners by not just knowing something about how people learn and but to understand how an adult learning situation differs from one with children. Some of these differences include: the self-directiveness of adults, the desire for the immediate application of learning that adults draw from the past experiences that adults learn from each other, and that adults prefer to participate in the planning and the evaluation of learning activities (Merriam & Brockett, 2007). According to Palloff & Pratt (2003), educators need to be more deliberate in paying attention to learners and what they need because educators not physically seeing or interacting with learners on a daily basis. Cyr (1997) suggested that distance or online colleges being staffed by highly-trained learner-oriented professionals. The system requires multi task educators who not only teach but willing to learn. In order to sustain student enrolment, the delivery agents must be on par with the student expectation. Adult learner needs a tutor who is knowledgeable and skillful. The study initiated to compare the ability of the well trained tutor with substantial knowledge in andragogical approach. Therefore, a primary objective of this study is to investigate the successfulness of a well trained educator who was familiar with andragogical approach in delivering the subject content effectively.

Purpose of the Study

1. The study was conducted to investigate the effectiveness of andragogical approach employed by tutor on academic performance of adult learners.
2. The study was to measure if there was any significant difference in the learners' academic performances due to tutor's expertise and prior training in teaching in open and distance and capability in delivering the subject content.

Hypotheses

H₁: Learners who were taught by tutor who was well trained in teaching open and distance learning and apply andragogical approach were able to achieve better academic performance in the test than those learners who taught by tutor who has no training in teaching open and distance learning and exclusively coupled with teaching experience alone.

H₀: There was no significance difference in academic performance in the test between the learners who were taught by tutor who was well trained in teaching open and distance learning and those learners who were taught by tutor who has no training in teaching open and distance learning and exclusively coupled with teaching experience alone.

Methodology

Participants

In this study, the samples were chosen from the second year adult undergraduates from the Bachelor of Psychology (Honours) programme in Open University Malaysia (OUM). The sample size consisted of 48 learners who were registered for the subject “Abnormal Psychology”. They were purposively assigned to experimental group and control group, each consisting of 24 learners.

Procedures

Two tutors were assigned for this study. Tutor A, who has successfully completed the nine modules of Postgraduate Certificate in Open and Distance Learning (PGCert ODL) which enhances the tutor knowledge and delivery ability through the andragogical approach which was taught in the modules attended in Table 1. The Tutor A employ multi teaching aids as a instruction tools such as on-line learning materials, animations, combination of Web-based teaching materials, and lecture-based instruction with careful attention to factors that would facilitate adult learners’ access and ease of use. Concurrently, Tutor B who was teaching the same subject for the past 7 years without any training or exposure in teaching in open and distance learning skills was assigned. Tutor A was consigned as experimental group and taught this group using her andragogical approach with the objective to meet the learning needs of ODL learners. The Tutor B was assigned to be in control group and he taught this group using solely his necessary knowledge, skills and experiences relevant to the subject without any proper training such as Tutor A who completed certificate in teaching in open and distance learning. At the end of the semester, a self-prepared test was administered to both of the experimental and control groups. They were tested with a set of subjective questions to measure their understanding and knowledge of the subject learning. This set of test consisted of 10 short essay questions for the subject of Abnormal Psychology. For both groups, academic learning achievement was assessed in two areas, overall knowledge about Abnormal Psychology and ability to demonstrate their understanding of the subject.

Data Analysis

The study has been analysed by an independent- samples t-test which conducted to compare learners’ score on the subject. The scores analysed by means, standard deviation and difference of means were computed for each group. Significance of difference between the mean scores of both groups on test was tested at 0.05 levels.

Results

In order to confirm whether both groups were essentially equal on knowledge in Abnormal Psychology, the statistical technique of t-test was applied, as shown in the following table:

Table 3: Significance of Difference between Mean Test Scores Experimental and Control Groups

Group	N	Mean	SD	SE	t-value	P
Experimental	24	57.17	14.12	2.08	9.25*	<.001
Control	24	37.92	10.35			

Df =24 t at 0.05=2.069 *Significant

Table 1 shows the difference between mean test scores of experimental group and control group was found to be statistically significant at the 0.05 level. The findings showed that there was a significant difference in the scores for experimental group (M=57.17, SD= 14.12) and control group (37.92, SD=10.35), $t(23) = 9.25$, $p = 0.001$. These results provided evidence that learners taught by andragogical approach consumed by Tutor A showed better score as compared to the control group. The null hypothesis was therefore to be rejected. Hence, both groups were found to be different in test scores, the difference being highly in favour of the experimental group.

Discussion

First, this study clearly shows that the academic performances of experimental group which was taught by tutor A has significantly scored better result in the subject Abnormal Psychology compare those who taught by Tutor B. The Tutor A applied the knowledge and skills that was learned from the Postgraduate Certificate in Open and Distance Learning (PGCert in ODL) developed by Open University Malaysia. The tutor A utilises proper teaching aids to enhance the teaching and learning process to take place successfully. The results of this study support the Knowles’s theory that learner centered approach and the key to adult learning is to allow learners to direct themselves through the instructional process by integrating new and relevant information with their previous experience. Knowles stated that adult learners are autonomous and self-directed, they are relevancy oriented and tend to feel that they must see a reason for learning something or understand the connection between the learning event and some aspect of their life which means that the learning has to be applicable to their work or other responsibilities to be of value to them (Bash, 2003). The development of PGCert in ODL programme that based on Knowles’ Adragogy theory helps to enhance the professional practices of people responsible for the development, implementation, and evaluation of adult education and training programs.

Second, Tutor A made use of multiple educational sources to cater the knowledge and doesn’t depend on her teaching experience alone. The results of this study then support the Billings et al. (2001) studies in which, learners’ knowledge is not only influenced by teaching methods, but the design of Web-based teaching materials used by Tutor A may influence what is learned. This finding supported by Billings et al. (2001), in order to make Web-based learning effective, instructors or educators must provide more guidance to learners and encourage learners’ active learning.

However, the findings in this study are subject to at least three limitations. First, these data apply to participants without detailed description of their background, no detailed description of teaching methods used by Tutor A and Tutor B, no detailed description of course conducted. Therefore, it is recommended that further research be undertaken in these

three areas to understand better the effectiveness of andragogical approach that has been developed by OUM.

Conclusion

Andragogical approach and advance training in teaching in open and distance learning plays an important role in teaching adult learners. In practical terms, andragogy means that instruction for adults needs to focus more on the process and less on the content being taught. Strategies such as case studies, role playing, simulations, and self-evaluation are most useful. In conclusion, the adult learners are needed to be attended by a tutor who is multi tasked and multi skilled in order to seize the best out of them. The study revealed that the learners taught by tutor with advance training in teaching in open and distance learning able to do better and efficiently demonstrate their knowledge on the respective subject. These results suggest that educator or tutor in the ODL environment need to be at the juncture where self improvement is a must in order to face the growing adult learners and their education enthusiasm. However, further empirical studies are needed to examine the influence of learners' characteristics and learning styles that may influence learners' academic performance. Further study is recommended for better improvement of understanding the effectiveness of andragogical approach that has been developed by OUM.

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Sub-theme 2

Distance Education, Lifelong Learning and Multiliteracies

Refocusing Adult Literacy, Non Formal Education and Long Life Learning Education for Multiliteracies in Africa



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Abstract

There is need for some African standardization of the terminology relating to literacy, adult basic education, non-formal education and lifelong learning, not in any restrictive or prescriptive way, but simply to aid understanding and comparability of data and research emanating from countries in Africa. Clarity will be done in this paper to distinguish adult education from more general community development. After decades of sustained efforts to eradicate illiteracy in Africa, illiteracy rates of adults remain high with continuing gender and urban/rural disparities. Illiteracy has several correlations with low productivity, low incomes and poorer health (and susceptibility to HIV/AIDS). It hampers national development efforts. The adult education sub-sector of state education systems remains relatively marginal and under-funded. In spite of the good economic progressed in many countries since the mid-1990s. This paper examines difficulties in some Africans states that is being attributed to multi-linguistic situations compounded by the often rural and subsistence economy of large proportions of the population. Nigeria for example has about 300 languages and dialects, and Chad some 120, of which only about 12 are codified. The Anglophone/Francophone division in African also provides its own difficulties for co-operation. This paper will therefore provide statistical summary of illiteracy and under-education in African countries. The paper therefore concludes that, adult education should be introduced to all teacher education programmes in African states to enhance multiliteracies.

Keywords: Adult Literacy, Non – Formal Education, Lifelong Learning Education, Multiliteracies

Introduction

Education plays an important role in the development of any society, and it is recognized as an active agent for the achievement of speedy socio – economic, political, scientific and technological advancement and development in any nation (Harry and Godfrey;

2012). Education promotes the quality, effective citizenship of an individual and enables him to build up his personality in such a way that he is able to play an essential role in developing the society to which he belongs.

Education according to Harry and Godfrey (2012) has been described as a process of developing and cultivating one's mind. In the same vein, Okoh (2003) defined education as a process in activity of preserving, developing and transmitting the culture of a people from one generation to another. Osokoya (2003) saw education as the tapping of qualities, potentials of the individual in the society and acquisition of skills, attitudes and competencies necessary for actualization and for coping with day to day life problem.

Adult education, tend to be conceptualized and defined as literacy, basic education, and livelihood – related skills training. Thus, for example, Eritreas national Policy on Adult Education (2005) defined it as literacy and continuing education that embraces literacy and post-literacy, advocacy and civic education, life skills and follow up vocational training programme". Most countries take completion of a certain level of education as a proxy for being literate. In spite of the growing interest in direct assessment of literacy skills, few countries have made use of uis-developed data collection instrument, literacy assessment and monitoring programme (LAMP), or the international adult literacy survey (IALS) instrument. These instruments aim to provide literacy data of higher quality and conceptualize literacy skills as a continuum rather than as a literate/illiterate dichotomy. Based on the above definitions, poverty and illiteracy can be reduced through effective implementation of adult, non – formal education and long life learning education programmes.

Purpose of the Study

The purpose of the study is to:

- (1) Enable adults to know their civic rights and duties in their countries.
- (2) Help the adults to influence the society in which they live by contributing to its effective running.
- (3) Acquire political knowledge and the system of government that will help them to understand how government works.
- (4) Enable adult take active part in the affairs of the government that affects their daily lives.
- (5) Enable the adults acquire literacy skills of reading/writing and numeracy that help them in their daily dealings.

Concepts of Adult and Non-Formal Educational Programme

Mass literacy according to Harry and Godfrey (2012) had been identified to have encompasses adult and non-formal education. Literacy, which is the ability to read, write and calculate, has been recognized both as a human right in itself and as a crucial instrument for the pursuit of other rights. According to Fasokun (2005) quoted by Harry and Godfrey (2012).

Literacy is not just about adapting to existing condition but having the problem solving and critical skills necessary to bring about any changes needed.

Adult education is frequently and confusingly conflated with literacy, post-literacy, functional literacy or non-formal education. Literacy, in the narrowest sense is the starting point for adult basic education, an essential but not sufficient component. The latter includes, inter alia, quantities of content knowledge as well as life skills and which in Africa can be defined in formal terms as being equivalent to the knowledge, skills and attitudes learned in general school. Adult basic education is aimed at and designed for adults to provide a conceptual foundation towards lifelong learning development (Chen and Ravallian 2008). It comprises knowledge, skills and attitudes required for social, economic and political participation and transformation applicable to a range of context. It may be conducted in mother tongue or, more frequently, in a dominant language. In some countries, it may be certificated. The current trend according to Glanz (2008) is for adult education to become more formal and certificated and equivalent to formal schooling. As with literacy, many basic education programmes claim to mix a right objective with more life skills or income generation objectives, where it is firmly linked with various forms of skills training, it is labeled adult basic education and training. Adult education could be viewed as all educational activities or processes that adult are engaged throughout life to keep their knowledge up to date, broaden their horizon so as to understand to live a fulfilled life. Therefore, adult education according to Harry and Godfrey (2012) could be seen as educational activities that equip adults to life, education for social purpose, political awareness and economic progress.

Mass literacy is given prominence, perhaps due to the nation's high percentage of illiteracy. Therefore, NPE (2004) captioned mass literacy, adult and non-formal education encourage all forms of functional education given to youths and adults outside the formal school system, such as functional literacy, remedial and vocational education. It also emphasize the need to provide adult basic education for millions of Africa adults and youths.

Lifelong Learning Defined

Lifelong learning is the continuous building of skills and knowledge throughout the life of an individual. It occurs through experiences encountered in the course of a lifetime. These experiences could be formal through training, counseling, tutoring, mentorship, apprentices, higher education, etc or informal experience. Lifelong learning also known as LLL is the "lifelong voluntary, and self-motivated" pursuit of knowledge for either personal or professional reasons. As such, it not only enhances social inclusion, active citizenship and personal development, but also competitiveness and employability (Thumbadoo 2008).

Lifelong learning according to Dalbera (2006) is the provision or use of both formal and informal learning opportunities throughout peoples lives in order to foster the continuous development and improvement of knowledge and skills needed for employment and personal fulfillment.

Lifelong learning means education resulting from integration of formal, non-formal and informal education so as to create ability for continuous lifelong development of quality of life. Learning is therefore part of life which takes place at all times and all places. It is a continuous lifelong process, going in from birth to the end of our lives, beginning with learning from families, communities, schools, religious, institutions, work places etc (UNESCO 2007).

Stages of Lifelong Learning

Stages of Lifelong Learning according to Delbera (2006) are as follows:

- (a) Learning in the 6-24 age groups: learning of the 6-24 age group primary takes place in educational institutions, from primary and secondary to tertiary levels.
- (b) Learning in the 25 – 60 age groups: learning during the working life of the 25 – 60 age group can learn informally through the use of instructional media, mostly from their occupying work-places, colleagues, touring, mass media, information technologies, environment and nature. Adults learn from experiences and problem solving. They therefore need continuous development of intellect, capability, and integrity.
- (c) Learning in the 60 + age group: Learning in old age (over 60years old) elderly people can learn a great deal from activities suitable to their age e.g. art, music, sports for the elderly, handicrafts and social work. They can also carry out voluntary work in community, organizations, clubs and associations.

Benefits of Adult Literacy, Non-Formal Education and Lifelong Learning in Africa

For any nation to achieve socio-economic development according to Harry and Godfrey (2012), eradication of poverty, illiteracy, and promotion of national unity, education should not be confined only to the formal school setting but should be extended to less privileged persons in order to equalize educational opportunity. It is necessary for any nation wishing to keep pace with changes in modern society to appreciate the need for adults to learn and continue to learn to be able to adjust to a rapidly changing world.

The relevance of adult education cannot be over emphasized, that is why in Nigeria, over population, unemployment and wide spread of poverty, hunger, illiteracy diseases and ignorance have produced a situation in which the formal school alone cannot meet all the desired needs or development of the country. Therefore, adult education, no doubt has a prominent role to play. If proper development is to be realized, rapid and momentous changes in scientific and technological fields make it necessary for adults to continue their education. (Harry and Godfrey 2012).

Lifelong learning core values of learning exploring, and serving, coupled with benefits for the mind, body and spirit make it an incredible powerful tool for personal transformation and enhancement. Lifelong learning according to UNESCO (2007) helps fully develop natural abilities, opens the minds, creates a curious hungry mind, increases peoples wisdom, makes the world a better place to stay, helps people to change, help people to find meaning to lives, make people to involve as active contributors to society, help people make new friends and establish valuable relationships and also leads to an enriching life of self – fulfillment. Adult education should be perceived in a wider context to embrace a wide range of education activities for adults who should be recognized as indispensable and be promoted as an essential agency for the progress of every society.

Curriculum Content of Adult Literacy, Non Formal Education and lifelong Learning in some African countries

Most countries in Africa have state – run programmes overseen by departments of adult education or similar units in ministries of education or other employment or development related ministries. These programmes tend to be run at local facilities or with provision sometimes outsourced to commercial or NGO providers. In many countries in Africa according to Aitchison (2006) countries NGOs play a substantial role but funding shortages may mean that they can no longer deliver services to the most disadvantaged groups. Outcome statistics are usually poorly and often inaccurately documented. In several countries, learners are mobilized by income generation activities, skills training, micro – loans, support from community leaders and training of participants as health auxiliaries and development agents for example in Gambia (UNESCO 2008). UNESCO institute for statistics (2001) Botswana’s entire adult basic education curriculum and materials are being overhauled, with the aid of an international team. South African Department of labour funds some adult basic education for workers and the unemployed via a skills levy with actual delivery outsourced. In Malawi it is used by the sustainable social and economic empowerment programme which has a component where learners are funded to run livelihood activities.

In 2002, World Vision Ghana collaborated with the non – formal education division on a functional literacy programme to enhance a water and sanitation programme. Nigeria has encouraged the use of interactive teaching and learning and has also developed Ajami (Arabic) integrated education in which Arabic education is integrated into western education, a situation thought to be impossible before. In Senegal the TOSTAN project has improved the educational situation of women learners not only by reducing the rate of illiteracy but also by improving health and living conditions. The curriculum includes instruction in a local language (Wolof), a participatory approach to training, traditional culture, community ownership and problem solving, health models related to the use of oral rehydration, which prevents the dehydration caused by diarrhea, a frequent cause of death among children in Senegal.

Between 1990 and 2007 Uganda enrolled over 2 million participants (75 percent women) in the functional adult literacy (FAL) programme. The Family Basic (FABE) programme was active in 18 schools by 2005, reaching over 3,300 children and 1,400 parents. This is a successful family literacy intervention whose impact at household, school and community level has been evaluated.

In Tanzania curriculum revision has led to the development of a more effective integrated community – based Adult Education (ICBAE) school equivalency programmes are organized for youths and adults who did not have basic education or secondary education. These programmes are distinct from literacy and numeracy programmes in that they provide equivalence to the general education provided for primary school children and/or secondary schooling.

Angola and Liberia both have “accelerated” programmes for young people who are too old to enroll in primary schools.

Namibia runs a three year Adult upper primary education (AUPE) programme. The learners take six courses in all, four core courses and two optional courses. They study two

courses each year. The curriculum has been designed to be equivalent to the upper primary programme in the formal system.

In Tanzania, open and distance learning is used in some secondary school equivalent programmes. The complementary basic education in Tanzania (COBET) programmes addresses the educational needs of youth who, for various reasons could not enroll in or dropped out of the formal primary school system. While the enrolment was high in 2003/2004 (466,018 learners), it has steadily declined since then (to 185, 206 in 2006/2007) as many youth were mainstreamed into formal education.

In Kenya, the University of Namibia provided extra – mural programmes from 1950s. It is now possible for working adults to study virtually anything at the university.

Seychelles has a mature student policy that stipulates a quota of places in post secondary education and training institutions. In Anglophone countries, a number of universities still run nonformal extra mural programmes.

Programmes Offered to Improve Literacy and Eradicate Poverty in Adult. Literacy, non formal and lifelong Learning in Africa

In order to meet the needs of improving multiliteracies and eradicate poverty from African continent. Adult literacy offers among other disciplines the following basic literacy, post literacy, women's education, functional literacy, nomadic education, continuing education, Ajami (Arabic) integrated education, literacy for the blind, workers education, vocational education, literacy for the disabled and prison education.

These programmes are fine – tuned and offered in various African countries under the supervision of the agencies for mass education and that have literacy and numeracy at the core with life skills as a bonus package for the more informed and non-formal education project (Harry and Grodrey 2012). Thus, the functional elements as specified in the national policy appears sub-summed under the heavy literacy and numeracy tilt. The functional subject include home economic, hygiene or health education etc (Makoju et al 2006).

These programmes are offered to improve the living standard of people of Africa through the mass literacy programmes. These content of the programmes on offer is essentially based on what can continue to appear to the interest of the learners. A number of countries have programmes that have effectively integrated HIV/AIDS and other health – related issues into adult basic education. These include the campaign for HIV/AIDS prevention and environmental education. Other initiatives include civic education by the human rights and electoral commissions, cooperative education by the department of cooperatives, as well as workers education by trade unions.

These are mainly non – formal vocational training and rural and community development (all related to livelihoods and poverty alleviation). Various government departments and institutes often link particular training for example, on gardening, poultry care, craft making, basic home care, and so on to more formal adult basic education/functional literacy programmes and sometimes provide equipment or micro – loans (UNESCO 2008). These types of educational programmes remain relevant if functional elements are integrated into them.

Challenges of Adult Literacy, Non Formal Education and Lifelong Learning, Programme in Africa

There are many challenges facing adult literacy, non formal education and life-long learning programmes in most African countries. These challenges according to Harry and Godrey (2012) are as follows:

- (1) Lack of funds and low priority: Low priority accorded to adult and mass literacy programmes contributed to the factors militating against the proper implementation of the programme.
- (2) Problem of access and drop outs of school: A study conducted by action aid published in 2003 according to Harry and Godrey (2012) showed the reasons why people refused to go to school as cost of schooling, opportunity cost, illness and hunger, limited economic cost of education and low quality of school.
- (3) Problems of irrelevant curriculum being used. These are curriculums that are not relevant to the mass literacy programme hence not meeting the objectives of establishing the adult literacy programme (Fasokun and Pwol 2008).
- (4) Unstable political system: Unstable political system in most African countries had hindered the effective implementation of the programme, hence this has frustrated the laudable ideas of establishing the mass literacy programme.

Conclusion

From the reports of the countries that responded to UNESCO's survey with regard to the state of adult education and implementation of the recommendations made. It is cleared that very few countries have enacted laws and implemented policies which promote adult education in a significant way. Though, adult literacy is integrated in broad education and development policies in almost all the countries, very limited financial resources are allocated for the implementation of adult literacy programmes. The various scholars emphasized on how to provide education for all be it formal, non – formal or informal education, irrespective of religion, tribe, sex and economic status. That is government should try and find all the possible ways of implementing adult literacy programmes.

Recommendations

- (1) Government of every African countries should try as much as possible to implement the programme, they should provide the infrastructural facilities for modern facilities and other materials needed. For effective management, teaching and learning in adult, non formal and lifelong learning centres.
- (2) Employment of qualified teachers to teach in the adult, non formal education and lifelong learning centres.
- (3) Adequate measures should be employed by stakeholders of education supervising and monitoring of the programme.

- (4) Non – governmental organization should assist to make the classroom environment for adult learners conducive for teaching and learning.
- (5) Policy makers of education should intensity effort to implement the statement of the countries policy on education regarding free education for less privileged person.
- (6) In order to provide funds for improving on the standard of adult learners performances, collaborator effort should be made between public and private sectors.
- (7) For the environment to be conducive for learning, banks and relevance organization should provide the required learning materials lacking, such as dilapidated buildings and facilities for the programmes.

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The Result of Using Distance Training Packages on the Topic of Local Wisdom of Samkok District Pathum Thani Province



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Abstract

The objectives of this research were (1) to compare the training achievement of the teachers and educational personnel using the distance training packages on the local wisdom of Samkok district, Pathum Thani province; and (2) to study the satisfaction of the teachers and educational personnel on the distance training packages on the local wisdom of Samkok district, Pathum Thani province.

The population and the experimental group were (1) the population consisted of 110 teachers and educational personnel of Samkok district, Pathum Thani province; and (2) the experimental group comprised 55 teachers and educational personnel. The research instruments were the training achievement test and the questionnaire on the satisfaction of the training packages. The statistics employed were mean (\bar{x}) and standard deviation (S.D.).

The results of the research were (1) the training achievement of teachers and educational personnel after using the distance training packages on the local wisdom of Samkok district, Pathum Thani province was higher than before training with the mean of 23.70 and 62.48; and (2) the satisfaction of teachers and educational personnel on the distance training packages on the local wisdom of Samkok district, Pathum Thani province was at a high level with the mean of 4.39.

1. Background and significance of the problem

Under the present educational management system, local wisdom is seen as of utmost importance. It was stipulated in the 1999 National Education Act (NEC, 1999:15), in Article 27, that the basic education establishments have a duty to prepare curriculum which considers the situations and problems of the community, its local wisdom, characteristics of its members deemed desirable to families, community, society and the nation. It indicated that in the process of teaching-learning management the education establishments have to use local wisdom as their essence in the curriculum. This was clearly stated in an objective of the basic education curriculum (2001) with regard to outcomes to be inculcated in the learners as a

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result of employing local wisdom in the teaching and learning process that “to inculcate in the learners love and pride of their community’s local wisdom; and the desire to conserve and propagate such identity (love and pride of their community) so it will be preserved and well known continuously”. The statements showed that all education establishments have to give a high level of importance to using the local wisdom of their communities as an essential part in their curricula, in order to develop the learners as specified by the curriculum objectives.

Samkok district of Pathum Thani province is a place where valuable local wisdom among Thais and Mons has been accumulated. (The Mon is a race which formerly occupied most of the area now known as Myanmar. The Mon waged a successive war against the Burmese and finally lost to the new comers. Some of them fled to Thailand in the early Bangkok period and are well assimilated into the Thai social mainstream. (Especially in Samkok area, though the majority still stayed and became Myanmar people. More Mon people came to settle in this area and the Mons’ local wisdom has gained more prominence since.) Such local wisdom is similar to those of the Mons living in Pakkred district of Nonthaburi province. However there are some differences worth studying. Therefore, the researchers collected, stored and collated the information in the form of printed materials and believed that the information could be made into distance learning packages for the purpose of promoting and supporting the teachers and educational personnel in Samkok district in enriching their knowledge; and using it as the essence of the curriculum in the teaching of the 8 learning areas. This is to enable the teachers to transfer the knowledge to the learners with regard to the local wisdom (to practice or be part of their lives) in their daily living. Such an endeavor would in effect inculcate love and pride in them as “Samkok people”.

The School of Educational Studies, Sukhothai Thammathirat Open University realized the significance of the local wisdom of the Samkok people which could benefit the the educational personnel and help the development of the learners to meet the curriculum’s objectives. Since Sukhothai Thammathirat Open University utilizes distance learning with printing materials as her major learning material for the learners. At the same time, the educational personnel have to work full time and do not have much time to attend training and workshop which were scheduled for many days. The researchers, therefore, organized a distance training workshop on the local wisdom of Samkok district by using distance training packages to equip the educational personnel with such knowledge in one day; so they could apply it in organizing the learning and teaching activities effectively.

2. Research objectives

1. To compare the training achievement score before and after training of the educational personnel using the distance training packages on the local wisdom of Samkok district, Pathum Thani province
2. To study the satisfaction of the educational personnel on the distance training packages on the local wisdom of Samkok district, Pathum Thani province.

3. Research hypotheses

1. The educational personnel trained through the distance training packages will have higher achievement scores than before training.
2. The educational personnel will be satisfied with the distance training packages at a high level.

4. Definitions of terms

1. A distance training package means a multi-media teaching package which has printed material as its main media; CD. and video as supplementary media and also face-to-face interaction in a training workshop.

2. Local wisdom means a body of knowledge which occurs as a result of accumulation of experiences in villagers' way of life and such knowledge as is created by the villagers themselves or passed on continually as their social and cultural heritage.

3. Training achievement score means a comparison of scores of the pre-test and post-test of the educational personnel of Samkok district, Pathum Thani province who had undergone training with the distance training packages.

4. Satisfaction with training means positive opinions expressed by the educational personnel of Samkok district, Pathum Thani province toward the use of the distance training packages, which included the printed materials, CD., and video, and benefits gained from the training.

5. Population and experimental group of the research

1. The population consisted of 110 educational personnel of Samkok district, Pathum Thani province.

2. The experimental group comprised 55 educational personnel who were drawn by means of purposive sampling from the schools within the district. The educational personnel were requested by letters to join in the training. The researchers believed that by this means the training would have the trainees who were willing to participate in all the activities provided in the training.

6. Research tools

The tools used in the research were:

1. Documents of the distance training on local wisdom of the people in Samkok district, Pathum Thani province

2. Pre-test and post-test of the training. The test had gone through a process of counter check from 3 experts; its index of congruency (IOC) value was between 0.67-1.00.

3. 5 level Likert scale questionnaires on satisfaction toward the training. The questionnaire had gone through a process of counter check from 3 experts; its index of congruency (IOC) value was between 0.67-1.00. Then it was tried out with 10 educational personnel, and had the reliability coefficient of 0.95.

7. The distance training package

The distance training packages are multi-media teaching packages which have printed material as main media; CD. and video as supplementary media and also face-to-face interaction in a training workshop.

8. Data and information collections

The researchers collected the data and information by:

1. Sending the training packages one week before the training started.

2. The trainees attending the training for one day at a specified place and sitting for the pre-test prior to the training.
3. Evaluating the training by post-test and answering the questionnaires with regard to their satisfaction.
4. The experiment took a period of 1 day.

9. Data analysis

The research team employed descriptive statistics (which were) mean and standard deviation in analyzing the data.

10. Research Finding

Analysis of the data has yielded the results as follows:

1. Comparison of training achievement score before and after the training of the educational personnel on local wisdom of Samkok district, Pathum Thani province. The results were illustrated in table 1.

Table 1 Comparison of training achievement score before and after the training of the educational personnel

Items	\bar{x}	S.D.
Before using the training package (pre-test)	23.70	0.57
After using the training package (post-test)	62.48	0.24

From table 1 it showed that educational personnel had a higher average score on the post-test ($\bar{x}=62.48$, s.d.=0.24) than on the pre-test ($\bar{x}=23.70$, s.d.=0.57).

2. Study of satisfaction of the educational personnel toward the distance training package on local wisdom of Samkok district people, Pathum Thani, yielded the results as follow in table 2.

Table 2 levels of satisfaction of the educational personnel toward the distance training packages

Items	\bar{x}	S.D.	Interpretations
Documents of the package	4.39	0.54	high
CD. and video	4.34	0.56	high
Benefits gained	4.52	0.46	highest

From table 2 it showed that; as a whole, the educational personnel were satisfied with the package documents, CD. and video at high level; i.e. $\bar{x}=4.39$, s.d.=0.54 and $\bar{x}=4.34$, s.d.=0.56 respectively. For the benefits gained, the majority of the trainees expressed their satisfaction at the highest level ($\bar{x}= 4.52$, s.d.=0.46)

11. Discussion

The results of the distance training packages used showed that the post-test average achievement score of the trainees was higher than their pre-test. It was so because:

(1) The training packages had gone through a process of counter check from at least 3 experts; its index of congruency (IOC) value was between 0.67-1.00. The research team had also corrected its contents according to the suggestion.

(2) The training packages had been tried out with 10 educational personnel to identify its deficiencies before it was put into real use. The team took into consideration the problems, criticism and advice to revise the packages.

(3) One week before the training started, the training packages was sent to the trainees.

(4) In the training, power point presentation techniques, CD. and video were used to supplement explanation of the research team to help the trainees recall the contents which they had studied before.

Most importantly, the trainees had a chance to apply their knowledge of local wisdom of Samkok district, Pathum Thani in real situations under close supervision of resource persons, in order to develop their teaching skills in teaching all three types of education: formal; non-formal and informal. It was hoped that the effect would result in them having proper knowledge and understanding, which is in accordance with the findings of Rungratana Pungrian (2005: abstract) who researched about using local wisdom in teaching science with Grade 5 students and found that, when comparing their achievement score and scientific attitudes with the group which was taught by conventional methods, the achievement score of the learners was higher with .05 level of significance and they had more favorable attitudes toward science learning. Tawil Netwong (2004: 93-95) also found that a training package for teachers which had been systematically developed; had proper preparation procedure and activities; was checked and evaluated by experts; and was corrected again before real use would be an excellent training package. This was in line with what had been suggested by Komsant Chanaisawan (2005: 81) who found that an effective training package must go through a process of principal preparation, be checked by experts in the concerned fields, be trialed before it was put into real use; and be revised so as to improve it according to the information obtained from the trial, before it was developed as a training package to be used on a normal/regular basis.

It was found that sending the training packages for the trainees to study one week in advance was a crucial factor. It caused the trainees to have better post-test achievement as Komsant Chanaisawan (2005: 81) stated. He asserted that having the trainees prepare contents of homework in advance created conceptualization which stimulated ideas and subsequent achievement in the training. Integration of various activities in the training also helped the trainees to have knowledge and understanding. This is in line with Somjet Kraiklang (2004: 77) who studied a development of school-based curriculum using a training package prepared

especially for the teachers of Talaybua School Cluster, Nakon Rajchasima and Mariam Nilpanth (1993) who studied a development of research and culture curriculum.

The results of the study of the trainee satisfaction toward the distance training package on local wisdom of Samkok people, Pathum Thani showed that the trainees' level of satisfaction was high. This was probably due to the fact that the research team had assessed their needs prior to the development of the packages. The information obtained was used to identify the packages' contents, especially in the documents. This prior consultation and careful preparation resulted in a study program that generated a high degree of satisfaction among its users because it was tailored to their needs. The survey which was carried out in advance was a crucial step in package development as pointed out by Tawil Netwong (2004: 95). He asserted that a training package which has been through crucial development steps such as studying the development model; its structure; and checking and approval by experts according to rigorous procedures would result in having the package users' confidence and satisfaction at a high level. In addition, Somjet Kraiklang (2004: 77) also found that the trainees would be satisfied with the training at a high level if the training package had suitable and proper contents; was easy to understand; and they had read it one week before the training which helped them to understand the contents well in advance.

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The Trend of Distance Education Instruction Model for Sukhothai Thammathirat Open University

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Abstract

The purposes of this research were to study past and present teaching and learning conditions and circumstances of distance education and to study the trend of distance education instruction model for Sukhothai Thammathirat Open University. The study was conducted in three stages : 1(studying the model trend by reviewing related documents and researches; 2(analyzing and synthesizing data in order to develop a conceptual model of distance education instruction trend with the cooperation of five experts in distance education; and 3(investigating whether the conceptual model of distance education instruction trend would be appropriate and possible by a panel of nineteen Sukhothai Thammathirat Open University comprising of administrators and instructors. The study used the Delphi Technique, and used mean, median and inter-quartile range to analyze data.

The research suggests that distance education trend model of Sukhothai Thammathirat Open University had high possibility) $\bar{X} = 4.26$ (. 31 out of 32 items in the questionnaire were feasible. Curriculum development, distance education system, course materials production, tests and assessments, and teaching media development had constantly improved with increasing potential of faculty and personnel. Teaching development according to 2009 national qualification framework for higher education. Distance education trend which the group of experts considered most likely include the followings. First, the curriculum development aspect in which the developed curriculum would be varied to meet the needs of target groups, and international curriculum would develop so that students would be able to transfer to study in ASEAN region and in international educational institutes. Second, as for the distance education instruction, distance education instruction in government and private higher education institutions would be more interdependent because the formal, non-formal, and informal education systems encourage credit transferring. Third, as for the subject unit production, the content would be designed by using various medium so that students could choose according to one's ability and interest. Moreover, subject unit production should be concise, full of quality, and available on time. Fourth, as for the examination and evaluation, the system would be developed to support on-line exams and would allow individuals to register for examinations according to their schedules. Fifth, there would be the development of the electronic media resources, multi-media and electronic books for the learners to choose. Finally, the distance education would be designed in accordance with national qualifications framework for higher education and evaluation would be designed with the Sukhothai Thammathirat Open University context in mind.

Keywords: Distance education, Instruction model, Open university

1. Background and Significance of the Problem

Life quality improvement and education provision have to go hand in hand. At least, education prepares people to absorb benefits that result from such improvement. Moreover, everybody deserves new knowledge. This can be achieved through distribution of equal opportunities for education, establishment of fair educational system, and promotion of distance education (Kukrit Pramoj. 1988: 6-7). It is obvious that distance education plays an important role in education management. Like Thailand, many countries face the problem of attempting to distribute equal education opportunities. Therefore, distance education has to

be adopted. Distance education becomes more and more important especially in a modern society that uses wisdom to drive knowledge. It is also a learning-based society where technology and transport advance (Narimol Tanthasuraseth and Somprasong Witayakiat. 1991).

Education researches agree that distance education is a form of education management where students differ in ages and experiences. Learning can be carried out individually or in groups and self-learning at home, aided by media is emphasized. There should be a two-way communication between teacher and student. In the past several years, there are many obvious indicators of needs for distance education. These indicators include economic and societal changes, expansion and change of new knowledge, and progressive growth rate of population increase. Given these factors, traditional education cannot satisfy diverse and many needs of the people that result from economic and societal changes.

Distance education is an educational form that can satisfy societal needs and it becomes more and more popular particularly in a modern society which is the society of learning, technological advance, and borderless communication. This makes people in distance education circle begin to realize how important distance education is and begin to think about how to expand education further in order to keep up with great technological advance. Sukhothai Thammathirat University is an open university that utilizes distance education and continuously develops it. Currently, Sukhothai Thammathirat University uses educational innovation to support educational service, namely e-learning. It provides classes through electronic media. Students can learn on their own according to their abilities and interests. It is considered another channel of learning by oneself. The university has to plan for the future and think about how to as well as in which form it will provide distance education in the next ten years for the sake of preparation and efficient distance education.

2. Research Objectives

1. To study past and present distance education circumstances of Sukhothai Thammathirat Open University
2. To study the trend of distance education model of Sukhothai Thammathirat Open University in the next ten years (2010-2020)

3. Research Scopes

1. This research studied the trend of distance education model of Sukhothai Thammathirat Open University in the next ten years (2010-2020) and the study group included

- 1.1 respected names in this field
- 1.2 experts
- 1.3 administrator
- 1.4 faculty members

2. Questions for experts Interviewed using Delphi techniques. for experts using Delphi techniques

3. This research studied the trend of distance education model of Sukhothai Thammathirat Open University in the following aspects:

- 3.1 curricula development
- 3.2 distance education system

- 3.3 course production
- 3.4 test administration and evaluation
- 3.5 instructional media development
- 3.6 teaching development under Thai Qualification Framework (TQF)

4. Research Methods

First: This research analyzes and synthesizes the tendency of Sukhothai Thammatirat Open University's distance education from relevant documents and researches. The researcher gathered information about distance education of Sukhothai Thammatirat Open University and other local and foreign universities. The researcher also studied theories, textbooks, researches, theses, websites, as well as relevant databases.

Second: A group of experts (composed of five experienced distance education experts) analyzed and synthesized information which acquired from the study in order to develop a framework intended to be the distance education model of Sukhothai Thammatirat Open University.

Third: The group of administrators and faculty members who are distance education experts of Sukhothai Thammatirat Open University determines appropriateness and possibilities of the model.

Population and sampling:

Population in this research had two groups which were:

The well known persons who are related to distance education based on the following criteria:

- 1.1 experienced in distance education field
- 1.2 have published work in the field
- 1.3 do field work in distance education

From the above criteria, the researcher chose five in the field and did the interview in order to develop distance education model details on those well known person in the appendix).

A group of experts who are involved with Sukhothai Thammatirat Open University distance education:

The researcher chose 19 experts on distance education based on Delphi technique which collected information from experts three times. In the first round, experts were interviewed at their convenience, and the interviews as well as questionnaires used in the first round became information used to make tools in the second round.

In the second round, the researcher used questionnaires with five levels of estimated values that were selected from interviews and questions from questionnaires approved by more than 60% of the experts in the first round.

In the third round, the researcher used questionnaires with five levels of estimated values that had the same content as the one used in the second round with median and interquartile range values of the group as well as previous opinions of those who took questionnaires shown so that those who took questionnaires could review their answers

5. Research Results

Results are as follow:

In terms of curricula improvement of Sukhothai Thammathirat Open University

Distance education curricula development should reflect the needs of diverse target groups better. Sukhothai Thammathirat Open University will improve distance education curricula to satisfy the needs of expanding target groups. It also needs to cooperate with other business organizations in developing curricula so that work experiences can be credited in distance education. Furthermore, it will need to develop international curricula so that the university's students can transfer to ASEAN and international colleges and universities. Learning and teaching will need to be two-way communication. There will be educational institute that holds responsibilities in developing curricula and teaching media for other distance education organizations to buy. In the future, there will be collaboration in curricula development with ASEAN and international universities. At the same time, short courses should have broad structure so that it will be easy for students to transfer to other courses or to collect credits and transfer into Sukhothai Thammathirat Open University's program.

In terms of distance education system of Sukhothai Thammathirat Open University

Learning and teaching in state and private universities will be more interdependent as traditional, non-traditional, and self educated systems are all related. Curricula and courses in state and private universities should be transferrable learning by oneself will play greater roles in distance education because everyone can study whenever one wanted to and it is accessible to more target groups such as the disabled, the prisoners, the underprivileged, the seniors, and people in remote areas. They all can benefit from Sukhothai Thammathirat Open University's distance education. Therefore, all ten distance learning centers will play an even more important role in distance education management; power will be distributed to centers more efficiently.

In terms of Sukhothai Thammathirat Open University's course production

Distance education will emphasize basic knowledge necessary for living, technical knowledge, occupational development, as well as beneficial and up-to-date news. The university should design course content so that convergence media can be utilized so that students can choose to study what they are good at and what they are interested in. Course materials should be produced in concise, full of quality, and on time manner. As for course outline the book should be printed-based and look more attractive and more modern so that it will attract readers. In addition, teaching materials should be downloaded in text file and audio file.

In terms of test administration and assessment of Sukhothai Thammathirat Open University

As for test administration and assessment, the university will develop online test system for online curriculum and other curricula for students' convenience. Or there might be walk-in exams for courses in which there are a good number of students failing the tests. Besides, there might be test registration in advance based on individuals' readiness. As for assessment, there might be more quizzes and more frequent tests for undergraduate students so that they will be able to pass the tests. There might be different forms of assessment for different fields including theoretical tests, practical tests, and seminar tests.

In terms of teaching media development of Sukhothai Thammathirat Open University

ICT might be brought into teaching as an alternative media for undergraduate level, but it will be the main teaching media for graduate level. There should be storage of electronic media that students can choose from. Multimedia book and e-book should be added and they could be read from mobile devices such as cell phones, ipad, galaxy, e-reader. Virtual experience based activity in distance education should be developed into online system. In the future the main teaching media will be as follow:

- printed materials
- radio
- TV
- computer
- satellite

Or there might be combination of media based on students' expertise and interests. Most importantly, computer networks should be stable, accessible, rapid, and extensive so that teachers and students can use them quickly and conveniently.

In terms of Sukhothai Thammathirat Open University's teaching and learning development based on Thailand Qualification Framework on Higher Education

Best practice from ASEAN countries and countries across the world should be collected in order to improve teaching and learning as well as researches under TQF. However, Sukhothai Thammathirat Open University context will be taken into account for assessment. Distance education should be designed in accordance to TQF. For those courses that cannot use TQF; TQF should be infused into activity plan of those courses.

From 19 questionnaires about distance education trend answered by Sukhothai Thammathirat Open University's distance education experts using Delphi technique for three times, all experts have similar opinions. In the second round, experts have high level of opinions on Sukhothai Thammathirat Open University distance education. The average is $\bar{X} = 4.24$, and in the third round, experts also have high level of opinions. The average is $\bar{X} = 4.26$.

6. Discussion

In terms of curricula development of Sukhothai Thammathirat Open University The study found that experts thought that in the future, university's curricula will have to change because of technological advance and new knowledge. Distance education curricula development should meet the needs of different target groups, and learning should be a life-long process. If we are to consider distance education to be an educational system in which teachers transfer knowledge and experiences to students by utilizing different kinds of media, and teachers and students do not meet face to face. As technology advance, everybody will have greater access to education. According to Chaiyong Promwong (1988), distance education should be open in the following aspects:

1. Open curricula which mean many courses should be open so that students can choose according to their needs. This satisfies societal needs in terms of academic, occupational knowledge, and technical knowledge.
2. Open methods which mean many methods to present knowledge such as postal teaching, radio teaching, TV teaching, and additional teaching.
3. Open media which mean many kinds of media including print media, mass media, personal media, and regional resources that can strengthen learning circumstances for students.

Open places which mean every place can be used for learning

Open time which means learning can take place at any time that is convenient to students. Students can set up their own schedules.

Open services which mean there should be educational services to support teaching and learning.

Open knowledge which means additional teaching service, consulting service, and service centers.

Open-minded which means the mind is open to new ideas and changes and has flexibility as time progresses.

In terms of Sukhothai Thammathirat Open University's distance teaching

From distance education researches of Sukhothai Thammathirat Open University, experts share the opinion that teaching and learning will be more of a two-way communication. The content will be useful for jobs and will improve students' quality of life, which is along the same line with traditional idea of Sukhothai Thammathirat Open University's distance education. Distance education arrangement will be as follows (Sukhothai Thammathirat Open University, 1990: 6-9):

Teachers and students are far from each other. Students will learn from media. Direct contact between teachers and students will be less than that in traditional education.

Students will be at the center of learning; they are free to choose courses and schedules as they see fit. In addition, they can choose places of learning and learning methods. They can plan their own learning

Media and technology will be main administrative and service tools; will not play main role as in traditional education, but individual will play supporting role. Media and technology in distance education will include print media, radio, TV, electronic media, computer, as well as telephone.

Operated and quality assurance by a group of people. System and organization will be developed to improve curricula and to produce teaching media. They will not be under a specific person's or organization's supervision, but they will be supervised by a group of people and many organizations so that it can be inspected at each stage.

Education will be organized systematically. Experts will be chosen to develop curricula, produce documents and media, write content, and evaluate so that operation and production will be carried out systematically.

Industrial process will be utilized in imparting knowledge to a number of students. Because education is meant for a great number of people, production, preparation, and transportation of educational media will need to use industrial process, meaning production method, technique, and process in industry will be adopted.

Media production and transportation should be emphasized over direct teaching. The institute will be responsible for document and media transportation, evaluation, and additional teaching in regional centers.

Organizations and structure will be established to support teaching and learning such as local study centers or regional study centers and local personnel and local resources will be used to support educational arrangement.

Two-way communication will be used. Even though teaching media is used, there will still be two-way communication between teachers and students through telephones and letters. The institute also arranges additional teaching service at study centers in designated time and courses.

As for teaching and learning, experts still accept previous teaching and learning which is up to standard. However, state and private universities should be able to compare curricula and similar courses. Self-learning will play a greater role in distance education.

In terms of course production of Sukhothai Thammathirat Open University

As for course production, experts agree that convergence media can be used in course design so that students can choose according to their expertise and interest. Course design should be concise, full of quality, and on time. Students can download course materials. If course materials cannot be produced on time or if students do not receive course materials, they can study from 10 modules for each course. They will be another way to help students learn.

In terms of test arrangement and assessment of Sukhothai Thammathirat Open University

Research reveals that experts have similar opinions on test arrangement and assessment. They agree that Sukhothai Thammathirat Open University has excellent test arrangement and assessment and they should be preserved. However, new channel should be added to support technological advancement, namely online exams for students who are ready and set up their own exam schedules. Student assessment of Sukhothai Thammathirat Open University has the following characteristics (Sangsri, Sumalee, 2006): for undergraduate and diploma levels, there are two kinds of course content, namely theoretical courses and practical courses.

Assessment throughout theoretical courses through activities assigned to students by the teacher. The total score shall not exceed 20% and final exams shall count for 80%.

Practical courses: practical scores will count for a great part of assessment and final exams will count less. The department will determine appropriate score ratio for each course.

Final exam schedules are included in registration documents of each semester. Assessment in occupational courses will come from suitable activities.

The university codifies students' abilities for each course as follows:

H: 76-100 scores (honor)

S: 60-75 scores (satisfactory)

U: score is below 60 (unsatisfactory)

I: incomplete

The university will only count credits for courses that students receive H and S, and H is equivalent to 4.00 and S is equivalent to 2.30. As for graduate level (master degrees and graduate diplomas), students will be evaluated according to assigned tasks, thesis exam for plan A, and comprehensive exam and independent study for plan B. Students who fail will have their second chance, but if they also fail in the second round, they will no longer be

students. As for intensive training for master courses, students will be evaluated from assigned tasks.

In terms of teaching media development of Sukhothai Thammathirat Open University

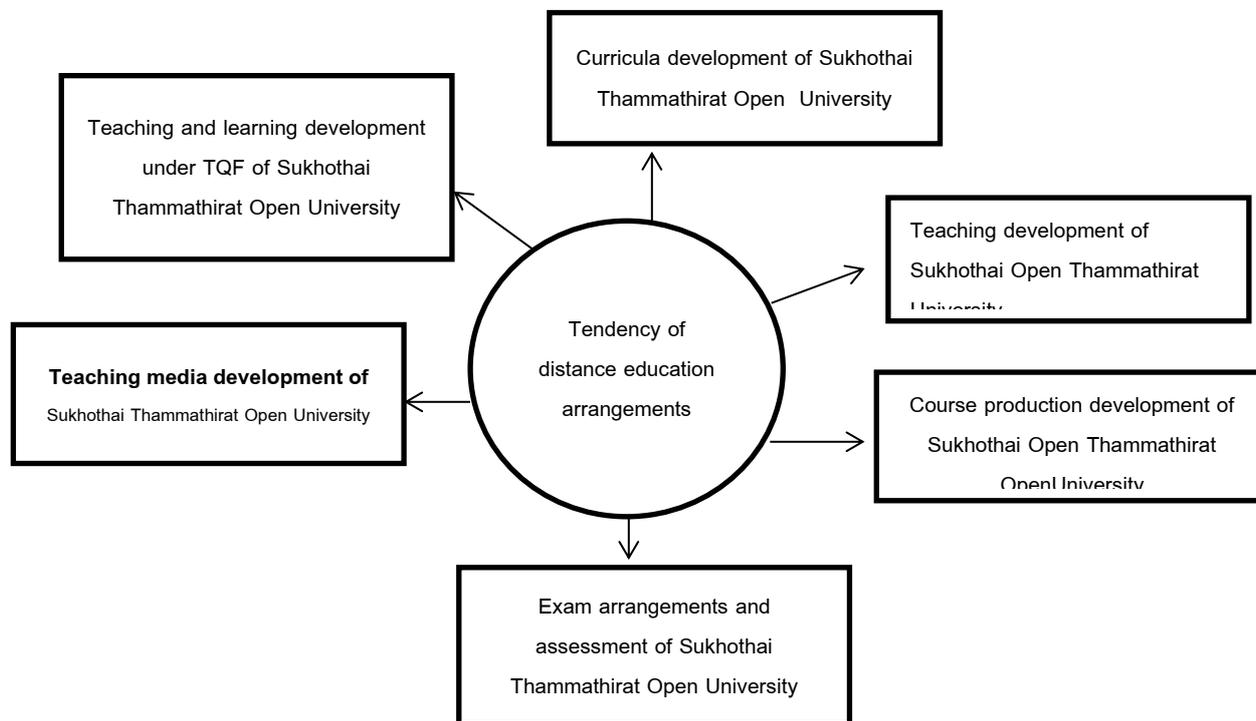
Researches reveal that a group of experts agree that ICT should be a secondary teaching media for undergraduate level while it should be a main teaching for graduate level. Electronic media should be developed so that students can study on their own and multimedia books as well as e-books should also be developed. Nikom Tadaeng et al. state that distance education could be classified in three groups based on teaching media structure. First, print media-based kind in which print media is the main media and other kinds of media can be used including radio, audio cassette, additional class, and practice. Second, audio and visual broadcast-based kind in which radio and TV programs are the main teaching media and other media can also be used including print media, audio cassette, picture, and additional class. Third, computer-based kind in which computer is the main channel for teaching and other media can also be used including print media, additional class, and practice.

Distance education can be arranged in many different ways based on different categories. In these days, categories are combined: usually, it is categorized as single or open distance education, paralleled distance education, and combined distance education. Distance education can be categorized based on media such as print-based, TV and radio-based, as well as computer-based.

In terms of teaching and learning development under TQF of Sukhothai Thammathirat Open University

Researches reveal that the group of experts thought teaching and learning development under TQF of Sukhothai Thammathirat Open University. The university should develop teaching and learning under TQF, but has its own method of assessment that takes into account the university's context. The university should design distance education teaching that is in accordance with TQF, but for courses that cannot be designed according to TQF, course activities can be designed to be in accordance with TQF.

This research shows the tendency of distance education teaching and learning of Sukhothai Thammathirat Open University.



Tendency of Sukhothai Thammathirat Open University distance education learning and teaching

In terms of curricula development of Sukhothai Thammathirat Open University

Distance education curricula development will reflect the needs of different target groups.

Educational institute will be established to develop curricula and develop commercial teaching media for other organizations that provide distance education.

Students can get credits for work experiences in distance education system.

Classes will have more of a two-way communication.

Collaboration between the university and other ASEAN and international universities will be built.

1. International curricula will be developed so that students can transfer to ASEAN and international universities.
2. Curricula will be more diverse to satisfy the needs of expanding target groups and curricula will be jointly developed by the university and other business organizations.
3. Structures of intensive courses and training courses will be broader so that students can transfer credits when apply for another curriculum.

In terms of distance education teaching system of Sukhothai Thammathirat Open University

1. Teaching and learning in state and private universities will be more interdependent.
2. Self-learning will play a greater role in distance education.
3. All 10 knowledge development centers of Sukhothai Thammathirat University will become important to distance education arrangement because they will distribute knowledge to other centers efficiently.
4. Distance education will be more accessible to diverse target groups including the disabled, the prisoners, the underprivileged, the seniors, and people in remote areas.
5. Second-life will be created for online education.

In terms of course production of Sukhothai Thammathirat Open University

1. Convergence media will be used in course design so that students can choose according to expertise and interests.
2. Distance education will emphasize basic knowledge for living, technical courses, occupational courses, and up-to-date and useful news.
3. Print-based media will be more modern and more interesting.
4. Document files and audio files used for teaching will be available for students to download them.
5. Course production plan will be concise, full of quality, and on time.

In terms of exam arrangements and assessment of Sukhothai Thammathirat Open University

1. For courses in which many students fail, walk-in exams will be arranged.
2. Online exams will be available for online curricula and other curricula.
3. Students can register for tests according to their readiness and their schedules.
4. There will be many forms of evaluation for different fields.

In terms of teaching media development of Sukhothai Thammathirat Open University

1. ICT will be used in teaching activities for undergraduate level as secondary media, but it will be the main teaching media for graduate level.
2. There will be online virtual experience-based activity.
3. Multimedia books and e-books will be developed so that students can read them from mobile devices such as cell phones, ipad, galaxy, and e-reader.
4. Storage of electronic media will be developed so that students can choose.
5. Main media for distance education in the future will be as follows:

- printed materials
- radio
- TV
- computer
- satellite

6. Computer network will be stable, accessible, fast, and extensive so that teachers' and students' convenience.

In terms of teaching and learning development under TQF of Sukhothai Thammathirat Open University

1. Best practice behaviors from ASEAN and other countries will be used to develop teaching and researching.
2. Teaching and learning will be developed according to TQF, but assessment will be in the context of Sukhothai Thammathirat Open University.
3. Distance education will be designed to be in accordance with TQF.
4. For courses that cannot be designed to be in accordance with TQF, course activities will be designed to reflect TQF.

10. Suggestions

Research results suggest that:

1. In the future, distance education will play great role; it is an educational form that promotes life-long learning. Thus, distance education should be extensive and should cover target groups; in addition to give the equal educational opportunities. They should feel that education is life and life is education; they can be educated any time in their lives.

2. Curricula and activities should be diverse and reflect societies, circumstances, as well as job market's needs. This way, students can use knowledge for their careers and raise quality of life.

Suggestions for next research:

1. Should study how to develop different forms of distance education for different target groups to prepare for continuous technological development.
2. Should study how to improve personnel who have different levels of technological skills so that they can use technology to develop distance education.
3. Should study long term progress of graduates so that we can modify and improve distance education to satisfy students' needs.

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Development of a Distance Training Package on Research Proposal Writing



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Abstract

The purposes of this research were (1) to survey the needs for a distance training package on Research Proposal Writing; (2) to develop a distance training package on Research Proposal Writing; and (3) to evaluate the results of using the developed distance training package on Research Proposal Writing.

The research sample consisted of 190 supervisors, teachers and education personnel to provide data for the survey of the needs for training via a distance training package on Research Proposal Writing, and 25 teachers and education personnel who were trained with the developed distance training package. The employed research instruments comprised a questionnaire, a distance training package, and an achievement test. Research data were analyzed with the use of the percentage, mean, standard deviation, t-test, and content analysis.

Research findings could be concluded as follows:

- 1. The overall need of the research sample for training via a distance training package on Research Proposal Training was at the high level. The topics that the research sample needed at the high level were the following: Writing of Background and Significance of the Research Problem; Writing of Research Objectives; Determination of Research Variables; Determination of Research Scope; Review of Related Literature, Writing of Research Framework; Research Design; Development of Research Instruments; Analysis of Quantitative and Qualitative Data; Writing of Research Operation Plan; and Evaluation of Research Proposal.*
- 2. The developed distance training package on Research Proposal Writing was appropriate at the high level.*
- 3. The post-training achievement scores of trainees who were trained to use the distance training package were significantly higher than their pre-training counterparts at the .05*

level, and the overall satisfaction of trainees with the distance training package on Writing Research Proposal was at the highest level.

1. Background and Significance of Problem

Research is a systematic and reliable process of seeking new body of knowledge. The research process comprises three steps, namely, research planning, research operation, and research report writing and dissemination. Research planning is an important step because if the research is well planned, it can be carried out effectively and efficiently. The goal of research planning is to enable the researcher to develop a good research proposal. The research proposal is like the blue print that serves as the master plan for the research operation. It must be developed by the researcher before undertaking the research operation. It is the research outline or structure written and presented by the researcher according to important headings or issues of the research proposal format as determined by the concerned work unit. The research proposal is important, especially in the case of many researchers working in the same research project, because it enables them to see the clear framework of operation and have common understanding in order to carry out the research operation based on the planned steps to achieve the planned research objectives. Also, the research proposal presents the whole picture of activities of the research project. It specifies the strong and weak points of the research project that will enable the researcher to revise and improve the project before starting the project operation to ensure that research project activities are carried out correctly and appropriately; otherwise, many problems might occur later which will cause research findings to be invalid or unreliable resulting in wasteful uses of time, labor, and budget. The research proposal can also be the document for the researcher to submit in asking for approval for undertaking the research or for research funds. The funding agency will make decisions on whether or not to provide the funding support to the researcher based on information specified in the research proposal. The decisions will be based on whether or not the research proposal is clearly and correctly written, is likely to generate beneficial research findings, and is feasible to carry out to obtain answers to research questions as required by the funding agency. Therefore, in undertaking research the researcher must have good knowledge on how to write a research proposal in order to plan for and carry out research activities efficiently.

Realizing the importance of research proposal, the researchers have decided to develop a distance training package on Research Proposal Writing as an academic service for teachers, education personnel, and those who are interested in doing research. This training project is a part of academic services for the society. It also supports the master plan of Sukhothai Thammathirat Open University for continuous development of the Thai society toward becoming the society of wisdom and learning.

2. Research Objectives

- 2.1 To survey the needs for a distance training package on Research Proposal Writing;
- 2.2 To develop a distance training package on Research Proposal Writing; and
- 2.3 To evaluate the developed distance training package on Research Proposal Writing.

3. Research Scope

3.1 This research is the development of a distance training package on Research Proposal Writing. Contents of the training package comprise five training units, namely, Basic Knowledge on Research Proposal Writing, Writing of the Introduction, Writing of the

Review of Related Literature, Writing of the Research Methodology, Evaluation of Research Proposal, and Exemplary Cases of Research Proposal.

3.2 Research population comprises academics, supervisors, teachers, education personnel, and people interested in conducting research.

3.3 Research variables comprise the following:

3.3.1 Independent variable, which is the developed distance training package on Research Proposal Writing.

3.3.2 Dependent variables, which are learning achievement of trainees, and satisfaction of trainees with the distance training package.

4. Research Hypotheses

4.1 The trainees' post-training achievement scores are significantly higher than their pre-training achievement scores.

4.2 The trainees are satisfied with the distance training package at the high level.

5. Research Methodology

Presentation of research methodology on the development of a distance training package on Research Proposal Writing covers the sub-headings of population and sample, research instruments, data collection, and data analysis, the details of which are as follows:

5.1 Population and Sample

5.1.1 The research population comprises academics, supervisors, teachers, education personnel, and people interested in conducting research.

5.1.2 The research sample comprised the following:

1) The research sample employed for a study of the needs for training on Research Proposal Writing consists of 190 purposively selected academics, supervisors, teachers, education personnel, and people interested in conducting research in Bangkok Metropolis and the provinces of Nonthaburi, Pathum Thani, and Samut Prakan.

2) The research sample employed in the experiment for evaluation of the developed distance training package on Research Proposal Writing consists of 25 academics, supervisors, teachers, education personnel, and people interested in conducting research, all of whom were selected based on their willingness to participate in the experiment as members of the experimental group to use the developed distance training package on Research Proposal Writing.

5.2 Research Instruments

The employed research instruments comprise 1) a questionnaire to assess the needs for training on Research Proposal Writing, 2) a distance training package on Research Proposal Writing, 3) an achievement test on Research Proposal Writing, 4) a quality evaluation form for the distance training package on Research Proposal Writing, and 5) a questionnaire on satisfaction with using the distance training package. Details of each research instrument are presented as follows:

5.2.1 A Questionnaire to Assess the Needs for Training on Research Proposal Writing. This instrument, developed by the researchers, is mostly in the form of 5-level Likert scale questionnaire. It is composed of four parts. Part 1 contains 11 check list items on personal background of respondents; Part 2 contains eight Likert scale items on opinions toward research proposal writing; Part 3 contains 30 Likert scale items on research proposal writing ability; and Part 4 contains two open-ended questions on problems and recommendations concerning research proposal writing.

5.2.2 A Distance Training Package on Research Proposal Writing. This instrument is a distance training document for self-study on Research Proposal Writing. It is composed of five training units. The First Unit deals with basic knowledge on research proposal writing; the Second Unit deals with writing of the introduction; the Third Unit deals with writing of the review of related literature; the Fourth Unit deals with writing of the research methodology; and the Fifth Unit deals with evaluation of research proposals and exemplary cases of research proposal. The contents of each training unit comprise the unit plan, the sub-unit plan, the learning content, the end-of-unit activities, the pre-learning self-evaluation form, the post-learning self-evaluation form, and the answer keys to the self-evaluation forms.

5.2.3 An Achievement Test on Research Proposal Writing. This test is in the form of a 5-choice multiple choice objective test containing 25 test items. Its IOC's, as verified by three test experts, range from .67 – 1.00.

5.2.4 A Quality Evaluation Form for the Distance Training Package on Research Proposal Writing. This instrument is aimed at evaluating three quality aspects of the distance training package, namely, the content aspect containing five items, the presentation aspect containing four items, and the application aspect containing two items. It also has one item in the form of a blank space for the respondents to write their recommendations.

5.2.5 A Questionnaire on Satisfaction with Using the Distance Training Package. This instrument is composed of two parts. Part 1 contains five check list items on general information of the respondent; and Part 2 contains 15 items of the 5-level Likert scale questionnaire dealing with the respondent's satisfaction with the distance training package. Its IOC's, as verified by three test experts, range from .67 – 1.00.

5.3 Data Collection

5.3.1 The researchers mailed the questionnaire to assess the needs for training on Research Proposal Writing to 200 people in the prospective research sample. The total number of 190 questionnaires were completed and returned. They were to be analyzed to determine the training contents in accordance with the needs of trainees.

5.3.2 The researchers developed the distance training program on Research Proposal Writing.

5.3.3 The researchers coordinated with the schools and concerned work agencies to select the prospective trainees.

5.3.4 A total number of 30 interested people submitted the application forms for the training. All of them were accepted.

5.3.5 The researchers undertook the experiment on training using the developed distance training package on Research Proposal Writing. Before the training, trainees were pre-tested with the achievement test on Research Proposal Writing; after the training, they were post-tested with a parallel form of the same achievement test. The hands-on training sessions took place for three days, during November 25 – 27, 2011 in Room 148 of the Seminar 2 Building, Sukhothai Thammathirat Open University.

5.3.6 After the training, trainees were administered the questionnaire to assess their satisfaction with the distance training package.

5.4 Data Analysis

Qualitative data were analyzed with content analysis, while quantitative data were statistically analyzed with the use of frequency distribution, percentage, mean, standard deviation, and t-test.

For analysis of the needs for training on Research Proposal Writing, the gap between the rating score on knowledge that the person should have and that on his/her actual knowledge were used to identify the existence of the needs for training. The gap of 1.5 rating score or higher was interpreted as indicating the existence of such need.

6. Conclusion of Research Findings

6.1 The Needs for Knowledge on Research Proposal Writing

It is found that of the 190 respondents to the questionnaire, 69.47 percent are females, while 30.35 percent are males. The largest group (33.16 percent) is in the age interval of 46 – 50 years, followed by the group in the age interval of 51 – 55 years (27.37 percent). Regarding their educational background, the majority of them (71.58 percent) have bachelor's degrees, followed by the group having master's degrees (27.90 percent). As for research experience, the largest group (35.97 percent) has research experience of 10 – 15 years, followed by the group having research experience of 16 – 20 years (27.89 percent). Analysis results of their knowledge on Research Proposal Writing show that their overall rating mean of the knowledge they should have on Research Proposal Writing is at the highest level (rating mean = 4.51); while their overall rating mean of the knowledge they actually have is at the low level (rating mean = 2.22). Thus, the gap between the two rating means is 2.29, indicating that respondents in the sample have the needs for knowledge on Research Proposal Writing in every topic starting with planning on research proposal writing; determination of research problem; writing of background and significance of research problem; writing of research objectives; writing of research scope; writing of definition of terms; writing of expected benefits from the study; writing of review of related literature; writing of research hypotheses; writing of conceptual framework of research; writing of research methodology including research population and sample, research instruments, data collection, and data analysis; writing of footnotes and bibliography; writing of formulation of research activity plan; and writing of evaluation of research proposals.

6.2 Results of the Distance Training Package Development

The development results can be concluded as follows:

6.2.1 The contents of the developed distance training package on Research Proposal Writing comprise six training units with the total number of 39 topics as follows:

Unit 1: Basic Knowledge on Research Proposal Writing comprises two parts and covers 10 topics.

Unit 2: Writing of the Introduction comprises two parts and covers seven topics.

Unit 3: Writing of the Review of Related Literature comprises three parts and covers eight topics.

Unit 4: Writing of Research Methodology comprises four parts and covers nine topics.

Unit 5: Evaluation of Research Proposals and Exemplary Cases of Research Proposal comprises two parts and covers five topics.

6.2.2 The experts have opinions that the developed distance training package on Research Proposal Writing as a whole is appropriate at the high level. The features that receive the rating means at the highest level are the following: the training contents being complete and covering all important issues and topics; the correctness of the contents; the up-to-datedness of the contents; the appropriateness of structure/sequence of the contents; and the contents being arranged in good sequence and well-connected style, making them easy to learn. In addition, all other features receive rating means at the high level.

6.3 Results of Experimentation with the Distance Training Package

6.3.1 The majority (75.00 percent) of trainees are females, while 25.00 percent of them are males. The largest group (35.00 percent) is in the age interval of 51 - 55 years, followed by the group in the age interval of 56 – 60 years (20.00 percent). Regarding their educational background, the majority of them (75.00 percent) have master's degrees. As for

work experience, the largest group (35.00 percent) has work experience of more than 30 years, followed by the group having work experience of 26 – 30 years (25.00 percent).

6.3.2 Regarding the trainees' knowledge on Research Proposal Writing, the trainees' pre-training mean score on the topic is 13.10 (out of the full score of 25), or 52.64 percent of the full score; while their post-training mean score is 18.04, or 72.16 percent of the full score. The result of comparison between the two mean scores shows that their post-training mean score is significantly higher than their pre-training counterpart at the .05 level, indicating that the trainees have achieved significant learning progress as a result of training.

6.3.3 Regarding the trainees' opinions, the conclusions are as follows:

1) As for the trainees' satisfaction with the distance training package on Research Proposal Writing, it is found that their overall satisfaction with the distance training package is at the highest level. When their satisfaction mean for each item is considered, the item with the highest satisfaction mean is that on the resource persons being able to impart knowledge, followed by that on the trainees being allowed to express their opinions or exchange opinions with fellow trainees, that on the contents of the distance training package being actually applicable in research proposal writing, that on the language used in the training being easy to understand, that on the training activities allowing trainees to have hands-on practice, that on the training process being continuous and cohesive, and that on the training facilities being appropriate for training activities, respectively.

2) As for the satisfaction level with the training as a whole, the trainees were asked to indicate their level of satisfaction with the full score of 10 signifying perfect satisfaction, based on their responses it is found that their overall satisfaction mean score is 8.95. They were also asked to specify their reasons for being satisfied, it is found that 12 trainees specify that the training enables them to gain knowledge on writing research proposals, while other specified reasons are that the resource persons have good knowledge on the topic and have high ability to transfer the knowledge, and that the training enables them to actually practice on writing research proposals.

3) The training features that the trainees are most satisfied and most impressive are the following: the resource persons' ability to impart knowledge making it easy to understand (specified by 20 trainees), the training documents and activities package (specified by 11 trainees), the practice sessions and exchange of learning, and the appropriateness of training facilities.

4) Trainees' recommendations on improvement of the training are the following: the training should be held during school vacation; the resource persons should explain more slowly on topics that are difficult to understand, such as topics on statistics; the training duration should be expanded; and there should be more individual assignments and feedbacks to individual trainees.

7. Discussion

Based on the research findings, the discussion is focused on four following points:

7.1 The Needs for Training on Research Proposal Writing. The overall need for training on Research Proposal Writing of respondents in the sample is at the high level. The training sub-topics that receive top need rating means are the following: writing of research objectives, determination of research variables, determination of research scope, review of related literature, writing of conceptual framework for research, determination of research design, development of research instruments, quantitative and qualitative data analyses, writing of research activity plan, and evaluation of research proposals. This is probably because a research proposal is important for research operation. It is the master plan or blueprint for research operation that enables teachers and education personnel to plan and conduct research effectively and efficiently. Therefore, teachers and education personnel

need to have knowledge on the whole process of research proposal writing starting with determination of research problem, and proceeding to writing of research objectives, determination of research variables, determination of research scope, review of related literature, writing of conceptual framework for research, writing of research methodology, development of research instruments, analysis of quantitative and qualitative research data, writing of research activity plan, and evaluation of research proposals. The written research proposal is the document that provides directions for conducting research. It enables the researcher to conduct research based on the planned research steps. It is especially important in the case of many researchers working in the same research project, because it helps them to arrive at common understanding and conduct their research project clearly in order to efficiently achieve the research project objectives (Pichit Ritcharoon, 2011: 184).

7.2 Quality of the Distance Training Package. The distance training package on Research Proposal Writing is found to be appropriate at the high level. Features of the training package that receive the rating means at the highest level are the following: the training contents being complete and covering all important issues and topics; the up-to-datedness of the contents; the appropriateness of structure/sequence of the contents; and the contents being arranged in good sequence and well-connected style, making them easy to learn; while the features that receive the rating means at the high level are the following: the contents being suitable for the target group; and the employed language is correct, concise and clear. This is probably because the developed distance training package comprises 1) the distance training documents that facilitate self-learning and the training activities that focus on actual practice process, with five training units, namely, Unit 1: Basic Knowledge on Research Proposal Writing; Unit 2: Writing of the Introduction; Unit 3: Writing of the Review of Related Literature; Unit 4: Writing of the Research Methodology; and Unit 5: Evaluation of Research Proposal and Exemplary Cases of Research Proposal; and 2) the manual for the distance training package on Research Proposal Writing that contains the details of training activities together with a set of seven practice activities for the trainees, namely, Activity 1: Selection of Research Problems; Activity 2: Critical Discussion of Exemplary Cases of Conceptual Framework for Research; Activity 3: Writing of the Introduction (research title, research objectives, research scope, and research hypotheses); Activity 4: Writing of the Review of Related Literature; Activity 5: Determination of Research design/Research Framework; Activity 6: Drafting of Research Proposal; and Activity 7: Seminar on Research Proposal. It can be seen that the contents of the distance training package cover important sub-topics of Research Proposal Writing. This may especially be due to the fact that in developing the distance training package, the researchers followed the sound process of training package development starting with the review of related literature, to be followed by identification of the target group, surveying the needs of the target group for training on research proposal writing, and identification of the training contents based on the survey results. After that, the researchers followed the process of distance training package development starting with designing the distance training package, followed by producing the distance training package documents and media, producing evaluation instruments for pre-testing and post-testing, and quality verification of all training documents, media and evaluation instruments. After quality verification and improvement, the researchers experimented with the developed distance training package to determine whether or not, and to what extent, the training package together with training activities have achieved the intended training objectives (Niphon Sukpredee, 1994; Ariya Phankomut, 2004).

The above research findings are in accordance with previous findings by the following researchers: Somkid Promjouy and others (2009: 58) who developed and experimented with a distance training package on Research and Development of Academic

Work, and found that the developed distance training package which comprised training documents and exemplary cases of academic research and development works were appropriate at the high level in the aspects of clarity of presentation, the employed language being easy to understand and highly appropriate, appropriate presentation of each topic, presented exemplary cases being clear and easy to understand, and the contents being up-to-date and practicable; Chutima Satchanant and others (2009:98) who developed and experimented with a training package to develop competencies of public librarians, and found that the developed training package was appropriate at the high level; and Boonsri Prommapun and others (2010: 46) who developed and experimented with a training package on Writing and Analysis of Achievement Test Items, and found that the developed training package was appropriate at the high level.

7.3 Trainees' Learning Achievement on Research Proposal Writing. From the experiment with the distance training package, it is found that the post-training learning achievement on Research Proposal Writing is significantly higher than their pre-training learning achievement at the .05 level. This is probably because the contents of the training package were written by experts with doctoral degrees in measurement and evaluation and curriculum and instruction. Every one of them has more than 15 years of teaching experiences in the distance instruction system at Sukhothai Thammathirat Open University. So they have a high level of experience in the distance instruction system. As a result, they organized the training contents that were in good sequence and well connected; they used simple language that was easy for trainees to understand; they provided achievement tests for trainees to do their own pre-testing and post-testing and thus evaluate their learning progress by themselves; and they organized for the trainees to have three-day practice sessions on Research proposal Writing at Sukhothai Thammathirat Open University under close supervision by resource persons.

This research finding confirms the set hypothesis. It is also in accordance with the previous research findings of the following researchers: Chutima Satchanant and others (2009:98) who developed and experimented with a training package to develop competencies of public librarians, and found that trainees who were trained with the training Package increased their knowledge significantly at the .05 level; Siriwan Sripahol (2008) who developed and experimented with a distance training package on Organizing Instruction to Develop Global Citizenship of Students for Social Studies Teachers, and found that trainees who were trained with the distance training package achieved their learning progress significantly at the .05 level; Somkid Promjouy and others (2005: 48) who developed and experimented with a distance training program on School-Based Curriculum Evaluation, and found that the post-training knowledge of trainees who were trained with the distance training package was significantly higher than their pre-training knowledge at the .01 level; Pacharee Phonyotin and others (2005: 81) who developed and experimented with a distance training package on Learning Management Innovations Based on Constructivism Theory, and found that the post-training achievement scores of trainees were significantly higher than their pre-training counterparts at the .01 level; and Boonsri Prommapun and others (2010: 46) who developed and experimented with a training package on Writing and Analysis of Achievement Test Items, and found that trainees who were trained with the training package achieved their learning progress significantly at the .05 level.

7.4 Trainees' Satisfaction with the Distance Training Package. It is found that the trainees' overall satisfaction with the distance training package is at the highest level. The features of the distance training package that receive satisfaction rating means at the highest level are the following: the ability of resource persons in imparting knowledge; the contents of the training package being feasible for application in actual writing of research proposals;

the language employed in the training package being easy to understand; the training activities allowing trainees to have hands-on practice; the training process being cohesive and continuous; and the allowance of trainees to freely ask questions, express their opinions, and exchange opinions with other trainees in the group. This is probably because the resource persons in the training are experts who earn doctoral degrees in research, measurement and evaluation and have teaching experiences in the distance education system at Sukhothai Thammathirat Open University for more than 15 years. Furthermore, the developed distance training package has undergone all steps of systematic development of distance training package; the training activities emphasize the actual hands-on practice by the trainees; and resource persons are those who wrote the contents of the training documents and serve as resource persons themselves, so they can put emphasis on giving the trainees opportunities for actual practice in the training activities. All of these reasons probably contribute to cause the trainees to be highly satisfied with the training.

This research finding is in accordance with previous findings in the studies by Chutima Satchanant and others (2009: 98), Siriwan Sripahol (2008), Somkid Promjouy and others (2005: 45), Laddawan Na Ranong and others (2005: 43), Patcharee Phonyotin and others (2005: 81), Boonsri Prommapun and others (2010: 46), and Somkid Promjouy and others (2009: 58), all of which revealed that the majority of trainees were satisfied with the training package at the high level.

8. Recommendations

8.1 Recommendations for Utilization of Research Findings

8.1.1 The people who want to use this distance training package should carefully study it in order to gain thorough understanding before using it.

8.1.2 This distance training package is composed of five training units together with practice exercises, and pre-training and post-training self-evaluation forms. The trainees were provided with this training package to study by themselves and then attended the training session. They found that the training package had satisfactory quality. Therefore, this training package proves to facilitate self-learning.

8.1.3 The teachers and education personnel who have undergone training on Research Proposal Writing should subsequently apply their obtained knowledge and experience in doing research for instructional development and improvement.

8.1.4 The teachers and education personnel who have undergone training on Research Proposal Writing should subsequently disseminate their obtained knowledge and experience to other teachers in their schools or in their educational service areas.

8.2 Recommendations for Further Studies

8.2.1 Follow-up studies should be conducted with teachers and educational personnel who have undergone this training to obtain information on whether or not, and to what extent, they utilize their obtained knowledge in developing research proposals and subsequent conducting their classroom research studies.

8.2.2 There should be research and development studies to develop distance training packages on other research topics, such as on Research Report Writing, and on Project Evaluation Report Writing.

8.2.3 Attempts should be made on development of on-line training packages, or Internet-based training packages, on various topics of research.

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The Butterfly Effect – Examining the Impact of the Global Recession on Part-time Lifelong Learners



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Abstract

This paper details an examination of the impact which the current economic climate is having on a specific group of lifelong learners, women who want to return to learning on a part-time basis when their children are growing up. The work is underpinned by a pilot study undertaken in 2011 which gathered the views of part-time mature students in an English university who were the last cohort to go through the system with government fee support rather than a student loan. This study revealed that women lifelong learners had very different perceptions to their male counterparts and to younger students. In follow-up studies this was explored further, drawing on other published material relating to the impact of fees, but using a more focused qualitative approach to examine, in greater depth, the real-life experiences and views of women who wanted to access education later in life. The women in the study are largely drawn from widening participation backgrounds which adds yet another dimension to the work as this particular group are not only battling with notions of cultural habitus, but also even more likely to be affected by the impact of economic constraints than those from wealthier backgrounds. The paper concludes by suggesting that a serious dichotomy is emerging, with an ageing population in much of the developed world, and an increasing need for people in these countries to be economically active for longer, yet an economic situation which is discouraging one substantial group of lifelong learners.

Keywords: Lifelong learning, economic constraints, cultural habitus

Introduction

Over 50 years ago meteorologist Edward Lorenz coined a new phrase, ‘The Butterfly Effect’ (Lorenz 1963), wherein a small happening in some part of the globe could, like ripples on a pond, radiate ever further with possibly catastrophic impact. In the five decades since then the world has shrunk immeasurably as globalization has taken root and this ripple effect has assumed greater and greater potential, not just in relation to the physical world described by Lorenz, but also in relation to the social and cultural world. To the average mature learner in the UK considering returning to education on a part-time basis in 2012, the sub-prime mortgage scandal and subsequent fall-out relating to banks and financial institutions, which

was initially highlighted by the collapse of Lehman Brothers in the USA in 2008 (Manudi 2008), seem initially unconnected with any of their realities. But, in fact, their chances of being able to fulfill their ambitions would be severely curtailed by those events five years before.

In their attempts to deal with UK debts, emanating from the financial crisis which spread like wildfire across the western world, the British government was having to look at every issue in relation to public finance. Income tax in England had remained at a relatively low level for many years in comparison to earlier times (Clark and Dilnot 2002) and the country was, like many others, feeling the financial strain; one aspect of which was that the British government could no longer afford to fund a burgeoning population of higher education students. Thus in September 2012 in England students coming to university had to pay full tuition fees, the first time in three generations that higher education has been fully funded by those in receipt of it. Despite a government loan scheme, the fees made English higher education one of the most expensive systems in the world (OECD, 2011). The introduction of fees was the consequence of a government white paper *The Browne Review: Securing a Sustainable Future for Higher Education* (DBIS, 2010) and was justified by continuing reference to the fact that graduates can expect to earn considerably more in their lifetime than non-graduates. Prime Minister David Cameron, in a speech justifying the introduction of fees, said:

“[...] over the course of a life-time, a graduate earns on average over £100,000 more than someone who doesn't go to university. Isn't it right that those graduates' contributions to the system should reflect the advantages they have enjoyed?” (HM Government 2010)

In truth, there was much more to it than that and their justification, in saying that graduates were going to earn considerably more than non-graduates, was designed to take the voters along with a measure which was guaranteed to be unpopular. In reality, the argument about graduate pay is neither straightforward nor necessarily true. Dolton and Makepeace (1990) and Hussain et al (2009) have shown that this increased earning potential is highly variable dependent upon the degree studied. O'Leary and Sloane (2011) likewise surmise that as the number of graduates increases, so the value of a degree, in economic terms, falls. This reflects the fact that, as academic drift demands more and more of people in terms of educational attainment, then the premium upon the holding of an undergraduate degree is bound to lessen. As Shaw (2013) argues:

This was recognised long before the advent of full tuition fees, and was identified over 40 years ago by Berg (1970) who was arguing that the perpetually increasing demands on the population for greater educational advancement was precipitating a pointless upward spiral; a non-zero-sum equation in which increasing demand for qualifications was creating a more educated population but thereby formulating a situation in which everyone was 'equally better educated', and so no-one was actually improving their economic prospects by studying harder for longer. (Shaw 2013)

In reality, the government had little option but to charge tuition fees; the global recession meant that all central expenditure had to be pared down as never before and the incoming Coalition Government, with a majority of Conservatives who regarded themselves as a party which would not raise taxes (Osborne 2012 in New Statesman 2012) were able to seize upon the Browne Review as one way to save money. One key question, however, was simply unanswerable – and that was how the impact of fees would manifest itself in relation to student applications and student numbers.

Widening participation

For more than two decades, the British government has been committed to expanding participation in higher education, especially in relation to non-traditional groups of students such as mature students and especially those from lower socio-economic groups. A wide range of policies were created throughout the last 20 years which address this: *The Report of the National Committee of Inquiry into Higher Education* (NCIHE) (1997), *The Learning Age* green paper (1998), *The Future of Higher Education* white paper (2003a), *Widening Participation in Higher Education* white paper (2003b) and *Higher Ambitions: The Future of Universities in a Knowledge Economy* (DBIS, 2009). These policies demanded that universities and other higher education institutions (HEIs) should widen participation to under-represented groups and reach a more diverse student population. As a consequence of these policies, all English universities expanded their student offer to encourage participation by more people from a wider variety of backgrounds, often by introducing new routes through their degree programmes for part-time and/or mature students. The increase in part-time degrees led to a huge response; and by 2009/10 the number of part-time undergraduate students studying in HEIs in England had risen to 512,500 – making up 32% of the total number of undergraduates (Universities UK, 2011), a trend which has subsequently continued until this year when there has been a marked decline (HESA 2013). These part-time students tend to be quite different from traditional full time undergraduates; they are often mature, often from lower socio-economic backgrounds, usually combining work, family and study in complex lives and, particularly in relation to the women, are often additionally dealing with challenges to what Bourdieu (1977) would call their cultural habitus. These women see themselves as housewives, mothers, manual or low-skilled workers and the idea of seeing themselves as undergraduate students is a cultural mountain to climb. When these students do enter university, however, they are often highly successful. Sutherland (1997) suggests that this is because they are able to make use of all the other parts of their lives to interpret their studies and give meaning to what they are learning.

In relation to widening participation we find the other ‘butterfly effect’ from the financial crisis which began in America in 2008. The financial situation in Britain, as in most of the rest of the western world, is in crisis, with falling wages, falling house prices and weaker employment prospects. For part-time mature widening participation students this represents a further barrier to higher education; even if they take out a student loan and overcome all the barriers created by challenging their cultural habitus, they also need to face the prospect of graduating into a more unstable job market. Thus the situation is designed to discourage this particular group of students disproportionately.

The pilot study

In 2011-12, prior to the introduction of full tuition fees a pilot study was undertaken at one English university to ascertain the potential impact of the changing fee structures (Shaw 2013). This pilot study asked groups of mature part-time students in one university and five partner colleges, where they were studying for a Foundation Degree followed by a B.A. Honours ‘top-up’ degree, to discuss whether they would have still come to university if the fees had been in place when they applied, what impact they felt that the fees would have on them if they had to pay them, and how they viewed their own studies in higher education. The results were unexpected in that they raised issues which had not been considered. For example, none of the respondents realized that their university or college received any government funding; all of the students assumed that they were already paying ‘full’ fees – despite these being less than £1000 per year. They were therefore baffled as to why the cost was going to rise more than fourfold in the future. There was a substantial difference in the

responses from women and from men. The men all stated that they would still have come into higher education whatever the fees were; the women were much more cautious and many respondents commented on how such costs would be ‘selfish’ and ‘unfair to the family’. They saw the costs of higher education as a family burden and the majority of respondents stated clearly that they would not have even considered undergraduate study at the level of fees proposed.

The pilot study used a qualitative methodology, collecting student views via an online discussion forum with which they were all familiar from their studies. The final output highlighted six key sets of responses from the students:

- Relief that they had avoided the new fee regime
- Fear that their families would suffer (especially their children) and taking a loan for themselves would somehow be a ‘selfish’ strategy
- Fear that graduate employment would still elude them and they would accrue debt for no positive outcome
- Fear that their age would mean that they would never be able to repay the debt in a working lifetime.
- A perception that the new regime would generate “extra” money for universities which would be reflected in hugely increased contact hours.
- Wariness about the generous repayment terms currently offered as a change of government could signal a change in these. (Shaw 2013)

As so many of the respondents suggested in their discussions that they would not have even considered higher education if the costs had been at the current (2012-13) level it was felt advisable to do a follow-up study, looking at both quantitative data in terms of applications and qualitative data to gather the views of current year one students. This would allow the research to examine whether the fears expressed in the pilot study had any foundation and to assess how far the overall economic climate was, in combination with the new fee regime, having a substantial impact on these widening participation mature, part-time students.

Methodology

In the first instance the number of applications was ascertained for study on to the three year Foundation Degree with a recognised route into an honours degree ‘top-up’, the same programme as was used in the pilot study. These data were then compared to data from the previous two years. For the main part of the research, as with the pilot study, the views of the respondents were gathered by an online focus group discussion, an established tool of qualitative research and one which is particularly useful for female participants (Kitzinger 1994; Morgan 1996; Wilkinson 2004). The focus group was made up of 53 individuals, almost all women and all involved in part-time study. Each of the students was studying at one of five centres – one university and four further education colleges which provide higher education. The student respondents were all in their first year but were becoming very familiar with the particular online environment used in the research as they were all taught extensively via the virtual learning environment by means of conducting asynchronous debates and discussions as part of their studies. In addition the researcher was able to interject in the debate at regular intervals to encourage participation, draw out new responses and extend the questions. The online forum used to set the questions and gather the responses was open for 4 weeks and all entries were asynchronous. The focus group discussions focused on the issue of tuition fees and these were steered by a number of key questions provided by the researcher. These were:

- Why did you decide to do a degree?
- Was it a difficult decision?
- Were you confident that you would be able to do work at degree level?
- Were you worried about the fees?
- Are you worried about paying back your student loan?
- How far did the idea of taking out a student loan to cover your fees influence your decision to come on the course?

Ethical approval for the research had been acquired prior to starting the research and all the students were advised of their right to withdraw from the discussions at any time if they wished to do so. In relation to the quantitative data, the numerical data on admissions were compared year on year. In relation to the qualitative data, the student discussions were analysed to identify emerging themes in relation to the key questions and to assess what sort of concerns (if any) were raised by the students.

Results and conclusions

Registration data were examined from 2010-11, 2011-12 and 2012-13. This showed that there had been a noticeable decline in student numbers in 2011-12 and a much greater decline in 2012-13. The decline from 2010-11 to 2011-12 of 13% broadly mirrors the Hesa data available for that year when part-time registrations were shown to have declined nationally by 14% (HESA 2012).

The figures for new students registering for the Foundation Degree across the consortium of colleges and the university were:

Table 1 – Student registrations

Year	Number of students
2010-2011	105
2011-2012	91
2012-2013	63

Overall, the numbers of new students registering in 2012-13 was reduced by 42% against the numbers registering in 2010-11. This decline is not unique to this cohort but mirrors national data produced by HESA in their report in March 2013 in which they say:

Enrolment figures for part-time study show significant falls in entrants in 2011-12 and 2012-13 at undergraduate and postgraduate levels

Numbers of part-time undergraduate entrants have fallen by 40 per cent since 2010 – equivalent to 105,000 fewer students.

(HESA 2013 p.13)

This data reflected exactly what might have been expected from the pilot study and it was therefore important to see, from the qualitative data, why some students did not seem to have been affected in the same way by the impact of the new fee regime.

The online focus group discussions generated data from which one critical theme emerged – that the students would not have applied in previous years because finding £1000 to top up the government funding would have been impossible, whereas the student loan – although a much greater sum – meant that they could effectively study for their degree without having to find money at the outset. Their comments included things such as “*If there had been no loan for fees I would not have been in a position to undertake the course*” and “*If the student loan wasn't available for part time students then I wouldn't have been able to do the degree*” and “*I feel that the student loan had a huge influence on pushing me into the degree*”. There was

also a fair amount of careful calculation in evidence, with respondents saying things such as “*It is unlikely that I will earn enough to start paying it back for a long time, if ever*”.

The other theme which emerged from the data, however, mirrored the pilot study. Almost all the respondents made some comment about their decision being selfish or self-indulgent, saying things such as “*It is probably the most selfish thing I have ever done because it is purely for my benefit*” and “*after hearing that the student loan could be an option, I had many sleepless nights deciding whether to apply for the course or not. I pride myself on being a very diligent and conscientious parent and homemaker, always cooking from scratch, sewing, creating with the children as they were growing..... I could not help but think that the children (although much older now) would be missing out in their final years at home, with me distracted by study*”. It therefore appeared that, taking these two sets of data together, there appears to be a situation emerging in which patterns of recruitment are changing. Those who do apply and go on to a course of study have been empowered to do so by the advent of a student loan, despite their continuing concerns that this is somehow self-indulgent. But the quantitative data suggest that there are many who do not now even reach the stage of considering higher education – an invisible group who see the cost and go no further.

Conclusion

What has emerged from this research is a worrying picture, especially for mature part-time learners whose cultural habitus makes them unlikely to automatically consider themselves as higher education students. The steady decline in registrations since the idea of fees was first made public, and particularly since the new fee scheme was introduced, is in line with national trends. As with the pilot study the ones who do come to university continue to be concerned about the burden they are inflicting on their families – albeit in terms of time rather than money. A key issue, nevertheless, is that those who have come to higher education have been encouraged (not discouraged) by a student loan and have developed pragmatic views about repayment. Arguably, these are the smaller number who already belonged to a group who saw themselves as potential students, whilst those whose cultural backgrounds discouraged such perceptions now do not even get as far as registering for the course. For the UK, as with many other nations, a serious situation is in prospect with an ageing population and an increasing need for these people to be economically active for longer, yet an economic situation which is discouraging one substantial group of lifelong learners.

More research would be needed into the backgrounds of the applicant group to reach any firm conclusions but this small project suggests that the financial crisis signaled on that fateful day in September 2008 by the collapse of Lehman Brothers in 2008 created a butterfly effect which continues to negatively affect those part-time mature students whom we categorize as lifelong learners.

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Democratisation in Distance Education: a Solution or Wishful Thinking?



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Abstract

Globalisation has had far reaching effects in the last several decades. Distance education today is both cause and effect of globalisation. According to Kanwar (2012), globalisation in the context of distance is the product of the integration of economies, technology and international knowledge networks that exceed the control of academic institutions. The emergence of the movement towards Open Education Resources (OER) and MOOCs, any free and open educational resources and courses that is available for use, has a tremendous potential to democratise education providing unlimited learning at no cost or a small fractional cost for ALL. What started with MIT's OpenCourseWare (OCW) project has now been replicated in many developed and developing countries in the world. This paper attempts to explore the social and pedagogical issues that surround the notion of democratisation in distance education based on various approaches being undertaken around the world to open education to new population groups. A comprehensive literature review on the history of democratisation in distance education, and the primary role and impact it has on education are discussed and analysed. This exploratory paper provides some insight into the strategies distance education institutions could begin to look at and better understand the dynamics of the evolution of online distance learning.

Keywords: Distance Education, democratisation in education, Open Education Resources (OERs), MOOCs, Theory of Disruption Innovations

Introduction

As stated by Kanwar (2012), globalisation in the context of distance education is “the reality shaped by an increasingly integrated world economy, new information and communications technology (ICT), the emergence of an international knowledge network ... and other forces beyond the control of academic institutions. Sethy (2008) noted that the ability to produce outputs via collaboratively in global networks is more appreciated by the present market than an academic degree fixed in space and time

Technologies opens up new opportunities for education. The Open and Distance Education (ODE) has given access to higher education to those who would otherwise have been unable to have access to education due to the lack of formal qualifications or the inability to combine

traditional studies with work or personal family matters. This result according to Sethy (2008) is to open the boundaries between education and work. In this regards, Peters (2010) wrote that “throughout history, education has been constrained by the iron triangle of quality, access and cost. The author further noted that in the case of ODE, through the division of labour, specialization and the economies of scale created by media and advance technology, the access-quality-cost triangle ideology can actually be re-configured. The flux of rising problem in education is the rise of private, for profit provision of education coupled with rising higher tuition fees, shrinking of public funding and investment in education. Technological innovations can now be applied to widen access to content and resource materials to achieve economies of scale (Kanwar, 2012).

The growth of nonconventional higher learning institutions, such as the distance education institutions, open universities, *free* online courses has, especially in recent years, been on a continuous rise. The fact that these institutions have been able to develop courses produced on an industrial scale has made it possible to offer educational opportunities to a greater number at a lower [some with no association] costs. What started with MIT’s OpenCourseWare (OCW) project has now been replicated to reach more countries in the world. A recent development of Massive Online Open Course (MOOC) or know for its open virtually access of quality course to anyone, provides a way of connecting instructors and learners across a common topic or field of discourse.

Still, the question remains, as to what extent the emerging movement of Open Education Resources (OER) and MOOC, have as a potential to democratise the distance education landscape? At the same time, how does this democratisation movements impact the educational institutions. In this article, we will attempts to review the development of the democratisation movement, its primary role and the impact it has on distance education. The article set forward as an exploratory paper that we hope provides some insight into the strategies distance education institutions could adopt and to better understand its dynamic roles in the evolution, and the future of the online distance learning era.

The Industrialisation of Education

The evolution of distance education was made possible according to Peters (2010) by the *industrialisation of education*. *Industrialisation* implies the massive productions of goods that may be manufactured at a lower cost than products manufactured by craftsman. Thus, these products can be more widely distrusted and sold at a much lower price making them accessible to a larger number of people.

During its infancy stage, the main goal of distance education may have been to reach out to those students for whom, and for whatever reasons, it was impossible to be physically present in a classroom. This is no longer the case as “distance education” is now trying to reach as many people as possible. In order to meet this goal, it has become necessary to produce teaching and learning materials that can be made available to a large number. Peters goes on to suggest that “...industrialised education may help to pave the way to an information-driven educational system that might be more adequate to our rapidly changing information and knowledge society” (Peters, 2010). To show the distinct comparison between *industrialisation* and *industrialisation of education*, a summary of some of the main points is presented in Table 1.

Table 1. *Industrialisation* in the production of goods and *Industrialization of Education*

Criteria	Description (Industry)	Identified in distance education
Division of labour	With division of labour more people are able to carry out specific task.	Teaching is divided into several functions : authors, instructional designers, media specialists, tutors, counselors, course coordinators etc.
Specialisation	Work processes are no longer performed by generalists, such as craftsmen, but by specialists responsible for one part of the process only.	Persons involved in developing, controlling and evaluating distance education are no longer generalists as teachers in the classroom but trained specialist.
Mass production/distribution	Standardised products are mass produced. Mass production/distribution is capital and energy intensive and enables the acceleration of production and ships the goods to customers wherever they may live.	The carefully and expensively developed high quality distance teaching course is the standardised object that can be easily mass produced. Distance teaching institutions establish regional offices that distribute the self instructional learning material to students living everywhere in the country (or abroad).
Concentration	Concentration causes the agglomeration of manpower, capital, revenue and the trend towards monopolised markets. Concentration of power makes for greater profitability.	Distance teaching institutions, especially open universities, often become the biggest in the country. This leads to a concentration of funds, experts, teachers and technical equipment. When open universities produce more graduates than conventional universities they have also the tendency to monopolise higher education.

Adapted from Peters (2010).

Peters' *industrialisation of education* theory is not a proposition as to how education may be made available to a greater number at an affordable cost. Peters' theory was developed by analysing the evolution and present status of "distance education. As demonstrated in table 1, distance education has developed measures and procedures that correspond to the *industrialisation* of consumer products. This is not to say that the *industrialisation of education* has produced, or is producing, a lower quality of standards. That discussion will be presented in the sections that follow. What is described is that education has become a consumer good; a transformation that is changing how education is dispensed and how education is consumed. The roles of educators and of learners are being transformed. The consequences of these changes also have bearing on the role of traditional institutions themselves. A fundamental question that will have to be considered, as put forward by Peters', is "concentration" that in the process of democratising education a new form of monopolisation of education may be taking place.

Open and Online Free Education (OOFEE) for All

During the last decade a perfect storm of capacity, distribution and need has created the conditions that have spawned an exponential increase of free, accessible and open educational resources. This storm of free accessible and open educational resources, or known as Open Educational Resources (OERs), started as a grassroots movement to make education available to everyone. It all started when Massachusetts Institute of Technology (MIT) made its historic announcement to make its courses open and fully accessible, known as MIT OpenCourseWare Project in 2002. Over the next few years many other institutions followed MIT's lead (Matkin, 2013). The OER movement has then become an institutional movement in higher education communities especially with the open and distance institutions who strived to teach large numbers of learners at lower costs than campus based institutions. Other prestigious educational institutions, such as Harvard, Yale, Stanford, Carnegie Mellon, and U.C. Berkeley had made some of their educational content freely available online as well. Atkins, Brown, and Hammond (2007) define OERs as “teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use or re-purposing by others”. In a simpler term, the OER resources, in any type and form, may be freely available for use, adapt, share, and reuse without any legal obligation.

As of today there are approximately 281 universities, from around the world, in more than 30 countries that are creating (or using OERs), and OER material is available in multiple languages. Large-scale open "utilities" tools such as the *YouTube* and *iTunes U*, have been used by OER educational institutions to promote open and free education (Matkin, 2013). Initially completion of an institution's OER material did not allow those who successfully complete the material to receive any course credits, exceptionally the Khan Academy, first created in 2006, does awards academic *badges* and *points* to those who complete various tasks on the studied course. The *badges* provides learners outward rewards (extrinsic) for achievement and completion (KhanAcademy, 2013). One could expect that the proliferation of OER began to have a gravitational pull. The learning community began to wonder how OER could be more effective in helping and reaching out to more learners, improving the teaching and learning process, and potentially lowering the cost of education. However, the uses of OERs typically are much less structured, and prominently for informal and self-directed learners engaged in self-study. Additionally, the vast majority of OERs resources are for the purpose for enhancing personal knowledge and perhaps exploring interests outside of one's professional field (Masterman & Wild, 2011).

In 2008 with the OER movement, an idea and practices synchronous known as “open online course” was introduced by George Siemens and Stephen Downes in Canada. The first ever open course scheduled in a more fluid structure, made it possible for 2300 learners, from the general public, to participate in the online class, free of charge. Dave Cormier and Bryan Alexander introduced the term Massive Open Online Course (Daniel, 2012). Stanford and other prestigious institutions in the US followed their lead in 2011 and 2012. Markoff (2011) noted that tens of thousands of users from over 150 countries signed up for the first MOOC class offered by Stanford University in 2011. The creators of this course have since, fall 2012, founded Udacity, a private venture. In about the same timeframe, MIT undertook a similar MOOC open course approach that subsequently developed MITx, which as MIT explains “will offer a portfolio of MIT courses for free to a virtual community of learners around the world” (MITx, 2012). In May 2012, MIT and Harvard (with the addition of UC Berkeley) announced EdX, a larger in scale learning platform that awards “Certificate of Accomplishment” to people who demonstrate mastery of EdX course material. Since then

similar initiatives from other prestigious institutions have come thick and fast in joining the MOOCs lead in the fear of being left behind (Daniel, 2012). Other companies are following suit in institutions across the US, including the for-profit Coursera, which has almost 2 million registrants, presently offering more than 200 courses (Coursera, 2012). What is new about MOOC is the scale, scope and pace of the ventures and the *disruption* innovations that we will discuss in the following section. MOOCs represents a new generation of distance and online education that is freely accessible on the Web and geared towards a very large numbers of learners from all over the world (Boxall, 2012).

Platforms of MOOCs appears to be separated into two distinct types that serves different purposes: those that emphasizes the connectives philosophy such as creation, creativity, autonomy and social networking learning carry the terms “cMOOC” while those that use video presentations and short quizzes such as those offered by Coursera and EdX is terms as "xMOOC" (Siemens, 2012). The phenomenon of open and online free education for all has revolutionised distance education landscape and as expressed by the President of Stanford University and quoted by Boxall (2011) has created ‘a digital tsunami’ potentially threatening to sweep aside conventional university education. Nonetheless, key questions and unclear directions that are confronting institutions of higher learning, regardless distance or conventional institutions, is the certification for those who successfully completed the course and how institutions assess “prior learning” learners who come with a certificate of completion from a MOOC provider such as Coursera, edX, or Udacity.

Theory of Disruptive Innovations

The survival of Open and Online Free Education (OOFE) ventures, in the market place, depends on their possibility to attract and maintain customers: students. How and where open and distance education institutions and OOFE ventures fit into the general scheme of education, their implications and consequences, may be better understood in the light of the *Theory of Disruptive Innovations* as put forward by Christeen, Horn, Caldera and Soares (2011). The theory has sufficient explanatory power to make the role played by these new providers, in the higher education industry, comprehensible.

The general definition of the theory is as follows:

“...innovation is the process by which a sector that has previously served only a limited few because its products and services were complicated, expensive, and inaccessible, is transformed into one whose products and services are simple, affordable, and convenient and serves many... The new innovation does so by redefining quality in a simple and often disparaged application at first and then gradually improves such that it takes more and more market share over time as it becomes able to tackle more complicated problems. (Christeen et al., 2011, p. 2)

The theory stipulates that the industries previously providing the service or product tend to improve upon the product rendering it more specialized and expensive. The product, at one point, exceeds the needs of the consumer, becomes expensive and affordable only to the high end of the consumer scale: to those who have the money to buy it and the expertise to use it.

The *Theory of Disruptive Innovations* further states that disruptive innovations have two key elements that enable them to evolve. The first one of these is technology. In early years of distance education postal services served the purpose the technology has evolved to include internet technologies. The disruptive innovation, at first, provides a lesser product and serves people who are not being served. As the product and the technology improve, the disruptive

innovation draws clients from the original provider and provides a product that is sufficiently acceptable to meet the needs of the consumer and gradually replace the original provider. The authors point out that low cost is defined by amount the university spends per student (Christeen *et al.*, 2011).

The second element that allow disruptive innovative to evolve is the business model. Disruptive innovations thrive to serve the need of customers, provide the client with what is needed for the client to achieve the goal being sought at a lower cost and in a manner that is convenient to the client. This is being achieved by online higher education providers. This is not to say that substandard products, and substandard content are being provided. The open and distance education industry is growing and its success can best be described by its focused approach in providing teaching and learning opportunities to meet the requirement of the clients. Christeen *et al.*, (2011) noted that "... focused on highly structured programmes targeted at preparation for careers - has meanwhile given several organisations [i.e online education providers] a significant cost advantage and allowed them to grow rapidly".

Internet is now spawning a new set of technologies build upon user generated and created content that is freely available, that once again promises to expand educational opportunity and in a disruptive fashion challenge the role and function of existing open and distance education suppliers. Anderson (2012) wrote that "disruptive technologies demand structural adaptation and many of our open universities seem resistant to such innovations, celebrating their past accomplishments rather than our current opportunities.

Obstacles or Opportunities to Democratisation in Distance Education

Development of democratisation in distance education is closely related to the availability of OERs and MOOCs. The OOFEs ventures come with certain interrelated obstacles and potential opportunities. There are some present persistent questions enthusiastic researchers try to answer. Will this OOFE have disruptive effects while creating new opportunities? Perhaps, OOFEs one of the major breakthroughs in distance education for one and for all? We have identified the following characteristics that might be obstacles and opportunities for distance education institutions.

Technology

The technology to produce the MOOC courses seems not to be a problem but an advantage. MOOC embodies a convergence of technology that is creating new energy especially around the online learning communities. On the technology side, the platforms enabling web-based instruction are more effective and reach greater scale of learners than ever before. Technologies that are widely used usually include high-quality indexed videos, data capture and analytics and interactive delivery platforms that combine the qualities of social networking sites with the content delivery, discussion and automated testing and grading functions of the traditional learning management system, adaptive learning platforms (i.e. Khan Academy and Knewton) do offer massive online material. This adaptive technology platform tracks and correlates data generated as students work's progresses – from time of day to clicks and response patterns – to personalise instruction. Ultimately all platforms may use data to adapt instruction to the learner (EDUCASE, 2012). In fact, many technology-driven solutions are now available to the aspiring OERs educators to use, including tools for improving discoverability through search engine optimization and metadata; for publishing content and assessing learning (McAndrew, 2012). Technology will define where online and distance education goes next (Regalado, 2012). All those millions of distance learning students clicking online can have their progress tracked, logged, studied, and probably

influenced. Just perhaps in the *near* future, with the advance development of technology it will create software that maps an individual's knowledge and offers a lesson plan unique to him or her.

Language

Most OERs and MOOCs originated in the United States where the prominent language being use is English. Bund (2013) wrote that "... MOOC is internationally accessible, however, the language barrier remains a key obstacle. Efforts to overcome this obstacle are being made by some service providers, such as Coursera in collaboration with *Amara*, a subtitling nonprofit crowd-sourced platform, to provide translation (Weredademic, 2012). Coursera boast that it has enrolled over 1 million students from 196 countries. A closer look at the statistics reveals that of the total number of students 38.5% are from the USA. This number goes down significantly for the second largest number of enrolments by country with 5.9% of the students enrolled residing in Brazil. All other students enrolled, 61.5%, are spread throughout 195 countries equating to a small fraction of enrolments per country (Coursera.org, 2012). In order to have a clearer understanding of the language issue the English Proficiency index developed by English First was used as a reference (English First, 2012). In its 2012 report they established the English Proficiency of 54 countries on a five level scale from *Very High Proficiency* to *Very Low Proficiency*. Countries with a *Very High Proficiency* rating are Sweden, Denmark, Netherlands, Finland and Norway. Based on the report by Coursera the total of enrolments for the above mentioned countries is 2 percent of the total enrollments. There is another group of 7 countries who are classified as by English First as *High Proficiency*. The total enrollment in Coursera courses, for these countries, is 4.6 percent of the total enrollments. China is classified as a *Low Proficiency* country but counts for 4.1 percent of the enrollments. Brazil which is classified as a *Very Low Proficiency* country counts for 5.9 percent of the total enrollments. Canada and the UK which are English speaking countries only account for 4.1 and 4 percent of the enrollments. These statistics alone do not establish causality between enrollment and language proficiency. There is a conscious awareness that language proficiency may be an obstacle on the other hand these statistics seem to indicate the possibility that English language proficiency is not necessarily a drawing card for enrollment.

Accreditation

Many have framed accrediting agencies as one of the most significant barriers that prevent innovation from occurring in higher education. Accreditation plays a significant role in higher education today. Universities and higher education institutions that are not accredited do not have access to funding from the government or funding agencies. Furthermore, accreditation is seen as a stamp of quality - such that if a university is not accredited, the assumption is often that there is something subpar about it. Rossi and Mustaro (2012) note that quality is no longer a characteristic merely measured or inspected to identify problems in the services or defects in the products, but its edification has to be prioritised during product development. This is realised in the same way for educational products and services, especially for educational products supported by technology. The move for accreditation off MOOC courses is in process at varying levels. This process in taking shape either through direct accreditation for courses offered by OOFE or through collaboration with institutions that can provide credits. For instance, EdX is planning what it calls the "flipped-classroom" in an experiment with a community college in the United States. The experiment is to combine MOOC courses with traditional campus instruction. On the other spectrum, the American Council on Education is considering recommending college credits for some of the completed free courses (Mangan, 2012). Subject to certain conditions, some traditional

universities already grant credits for certain MOOC courses such as in San Jose State University and Penn State University. Cooperation between degree granting institutions is also growing. Coursera recently announced that 69 schools had already signed up to offer their courses. The newest partners include Northwestern University, IE Business School in Spain and National Taiwan University (Korn, 2013).

Job Market Value

In the job market there is an increasing demand for *credentialed* as “proof” of knowledge. The acceptable practice is that university degrees are an integral part of the labour market (Craig, 2012). The Chronicle of Higher Education released data from a study of professors, who teach MOOC courses, a majority of them do not believe that credit should be awarded, yet believe that the courses play an important role in the changing face of education and have inherent value (Thadani, 2013). Previous research has demonstrated that candidates with online degrees are usually viewed as less desirable than candidates with traditional institutions degrees; candidates holding these traditional degrees have a better chance of finding employment (Adams & Defleur, 2005; 2006). According to Columbaro and Monaghan (2009), potential employers reported some concerns in regard to online degrees which include lack of rigor, risk of cheating, lack of commitment and concerns over degree mills. These perceptions have serious implication for OOFE courses where potential job seekers may hold only certificates of completion as proof of knowledge. Some researches (Astabi, 2010) argue that there is no significant different in the learning outcomes of students in online and traditional face-to-face settings. A particularly important aspect is that employers with online experience had a more positive attitude towards hiring online learners than those without online experience. There lies a paradox between the need for credentials as proof of knowledge, how knowledge will be defined in the market place and the growing demand for knowledgeable individuals to fill the needs of the economy.

Implications and Discussion

As a preamble in looking at the implications of the emergence of OOFEs, it may be appropriate to keep in mind certain conditions that are driving this new movement:

- a) Education has become a commodity to be sold and bought;
- b) Growing need of demand and supply worldwide for quality higher education;
- c) Rising cost of quality higher education;
- d) The faster growth of students enrolling in distance education than in conventional education

Although there is no empirical evidence that the new OOFEs students are students that would have otherwise enrolled with traditional institutions of higher learning or with Open Universities there is empirical evidence to show that collaboration between the new innovation and traditional providers, both in the USA and outside the USA, is growing. Established prestigious institutions from major world centers are getting involved by offering free courses or/and collaborating in the process. The reasons for this collaboration may not be clear at glance. As stated by Sethy (2008), one of the reasons may be a fear of being left behind. This may be a cause for concern, as noted by Peters (2010), when Open Universities produce more graduates than conventional universities there is a great potential for higher education to be monopolised by the first. The vast number of enrollments with OOFEs may be an indication of such a potential. No traditional university has the potential to enroll as large a number of students, at **one time**, for **one course** as may be done with online distance education. At the present time, OOFEs need to cross some barriers as discussed in the previous section. However, depending on the extent of collaboration with other OOFE

providers, who are creating OER materials in multiple languages, and with other major universities across the globe the barriers may not be insurmountable.

The *Theory of Disruptive Innovations* states that new innovations thrive to serve the need of customers and provide the client with what is needed for the client to achieve the goal being sought. It also states that new innovations tend to operate in areas that do not put them in conflict with regulations and that eventually, once customers have migrated to the unregulated system, regulators respond to “the fait accompli”. Clients may be defined by the increasing demand by individuals (client) to have access to quality higher education and secondly the need in the marketplace (client) for highly qualified people to fill jobs that demand new skills. As Sethy (2008) rightfully pointed out collaboration in global networks is more appreciated in the marketplace than a degree obtained in the conventional manner. Thus addressing the needs of both client groups or as put forward by the President of Stanford University with the creation of “a digital tsunami” threatening to sweep aside conventional university education whereas education would become defined, by the marketplace, in terms of knowledge and not uniquely in terms of degrees per se.

Considering what is going on in the marketplace, we re-defined the types of educational providers as describes in Table 2.

Table 2. Re-defined types of educational providers.

Provider Types	Descriptions
Traditional [TP]	Specific type: the all inclusive <ul style="list-style-type: none"> Involved in research and knowledge development/ personal and social development of students through direct participation in university life/ degree granting with limitations to clients (prerequisites required, high in cost, available at specific time and place)/ provides specialized services to society and industry (advisory and consulting)
Open [OP]	Specific type: the accreditation provider <ul style="list-style-type: none"> Some knowledge development ,but limited, through research, degree granting (few limitations – few prerequisites, can be done anytime anywhere at low cost)
Free [FP]	Specific type: the knowledge driven provider <ul style="list-style-type: none"> Knowledge proliferation only/ flexible in time, place and minimal cost.

Caudill (2013) notes that in the form of a business model perspective, MOOCs are very much a traditional business model concepts; they are low cost production sold for low prices but at extremely huge volumes that potentially generate substantially incomes while delivering a quality product to a large audience of learners across the globe. In Conclusion we would like to offer perspectives scenarios that perhaps seem pertinent, at this time, regarding the providers described in Table 2. (a) Could the FP, in its collaboration with the TP, disrupt the OP?; (b) Could the TP, established institutions who choose not to cooperate, or who are not capable of doing so, with the FP be disrupted by the major players in the TP and the FP?; and (c) Can the OP, in developing partnerships with the TP remain a strong force in the market and disrupt the FP?.

Conclusion and Final Remarks

No doubt that this democratisation movement has impacted the distance educational institutions across the world. The development and movement to democratisation in distance education may be a solution to the existing problems in the ever rising cost in education. With the rise of all types of OOFÉ ventures, the future of distance education is perhaps one step closer to a “for all” people, everywhere, to have affordable, accessible education opportunities. Yet, it is premature to predict the prominent impacts on all types of educational providers. Many universities and private venture funds investing in this area have openly acknowledge the high level of experimentation and testing is involved. Perhaps, the year 2013 is the *infancy* stage of democratisation, the coming years will tell the story of what OOFÉ venture will become, but one thing is affirmed, that this movement is simply too great for distance educators, and any enthusiasts, to ignore and disregard. This evolution has the potential to undermine and replace the existing business model of all educational providers; institutions that depend on recruiting and retaining students for location-bound, proprietary forms of campus-based learning or distance-based learning.

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**The States and Problems in Learning via e-learning System in the 20799:
Professional Experience in Curriculum and Instruction
Course of Graduate Students in Curriculum and Instruction Program,
School of Educational Studies,
Sukhothai Thammathirat Open University**

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Abstract

The purpose of this research was to investigate states and problems in learning via e-learning system in the 20799: Professional Experience in Curriculum and Instruction Course of Graduate Students in Curriculum and Instruction Program. The 116 multi-stage random samples consisted of students in the 20799. The data were analyzed into percentage, mean and S.D.

The results were as follows; In aspect of states, almost all of the students had state of experience in using internet 3-4 years, they have own computer. Thai Language were used for searching via e-learning system at home in the evening and before went to bed. Most of them searched via e-learning more than 8 times per month. Explanation in manual of activities plan was the best resource, students got most understanding. They gainful from doing activities via e-learning system in high level. In aspect of problem via e-learning system, there were high level as follows; opportunity in using computer, convenience in doing activities via e-learning, registration for doing activities via e- e-learning system, preparing of students for debate in web board, There were median level as follows; receiving document and reply with friend, ability in searching via e-learning system, period of times which assign for doing activities in web board, understanding about doing activities via e-learning system, period of times which assign for chatting, sending document while chatting and debate in web board, approach to the 20799 web board, and students preparing for chatting with friends. There were low level as follows; receiving information about steps and way of doing activities via e-learning system, receiving information and reply from advisor, searching information through University's web page. In total of problem via e-learning system aspect, there was median level. For supporting approach were as follows; 1) up load the way of using e- e-learning system and step of log in. 2) demonstration about using e-learning system 3) presented using e-learning system, step of log in and doing activities in manual of activities plan.4) presented sign for warning on School of Educational Studies's web page when it's times for activities 5) presented reinforcement through School of Educational Studies's web page.

Keywords: States, Problems, e-learning

Introduction

Sukhothai Thammathirat Open University (STOU) was the first university in Southeast Asia to use the distance learning system. This system of learning expanded the role of higher education in Thailand by engaging learners who previously had no opportunity to

further their education. STOU has enabled the development of individuals and communities throughout Thailand and beyond. The STOU distance learning system providing students with the freedom to study and interact according to their individual circumstances and locations. Courses were developed by course teams and then delivered to students through distance media. The variety of media and study methods also encourages interaction between students and university personnel. Originally, the main teaching materials were textbooks and workbooks mailed to students. Now, the university follows the STOU Plan 2000 in providing distance education courses. According to this plan, course blocks can be presented in two ways: print-based and computer-based (e-learning).

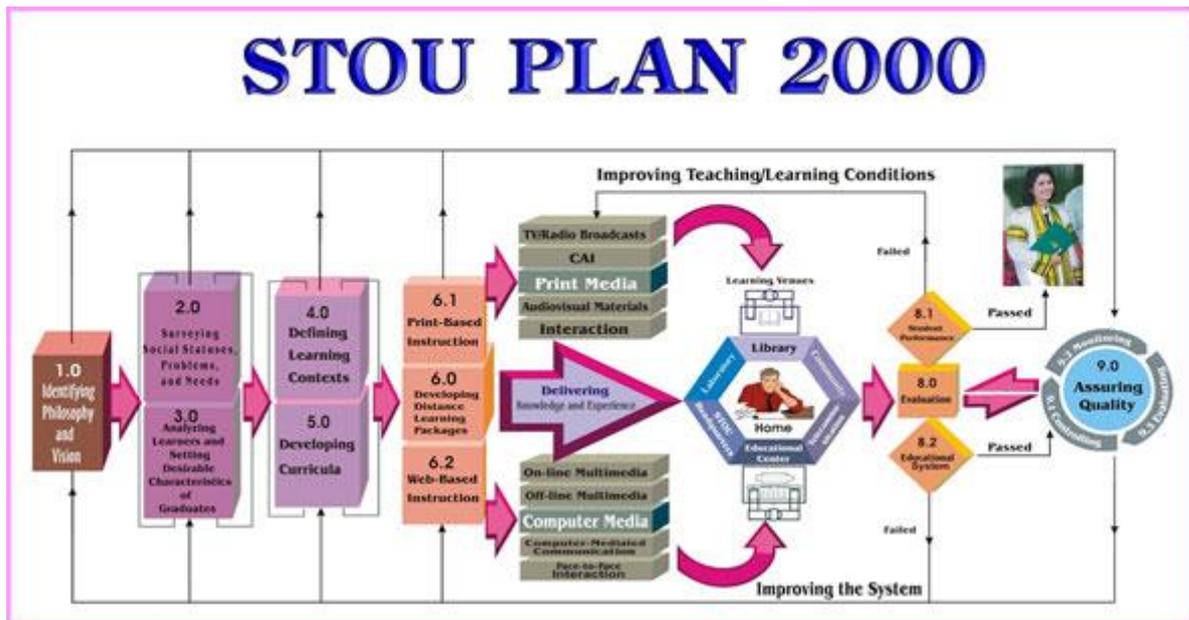


Fig 1 STOU PLAN 2000 (<http://www.stou.ac.th/eng/DLS.aspx>)

In 2011, School of Educational Studies improved the system of learning a course of graduate Students in Curriculum and Instruction Program: the 20799(Professional Experience in Curriculum and Instruction) by learning via print-based and computer-based (e-learning). There was an e-seminar in April-May, 2011 and intensive seminar for 5 days in May, 2011. By the first time of improving; it may be any problems or difficulties for scholar. It's good for course teams to know about state and problems in Learning via e-learning System in the 20799. Usefulness of the information is to be used to improve learning system of this course in next year

Purposes of the study

The purpose of this research was to study states and problems in learning via e-learning system in the 20799: professional experience in curriculum and instruction course of graduate students in curriculum and instruction program and to find out supporting approach of learning via e-learning.

Method

The participants was 116 learners who studies in the 20799: professional experience in curriculum and instruction course of graduate students in curriculum and instruction program. Stratified random sampling was used to proportionally of 164 learners in each major by Krejcie&Morgan's table.(1970)

Questionnaire was data instruments; which composed of 3 parts. The first part was personal profile of learners, questions about state and problems in learning via e-learning system in the course and the last one was supporting approach for using learning system via e-learning.

Data collection by mail. 65 of questionnaires (56.03%) were returned to researcher. Descriptive statistic: percent, mean, standard deviation was used for data analysis. Content analysis was used to analyze about supporting approach for using learning system via e-learning.

Results and Conclusion

The results of this study were present into 3 part as follows;

Part 1 personal profile of learners.

There were 4 male (6.15%) and 61 female (93.85%) in the complete information. 9 learners(13.84) were younger than 35 years old, 56 learners(86.15%) were 35 years old or more. 41 learners (63.07%) used to learning via e-learning, 24 learners (36.93%) didn't used to learning via e-learning as shown in table 1.

Table1 general document of learners

list	Gender		age		Experience in Learning via e-learning	
	male	female	<35	≥35	yes	no
number	4	61	9	56	41	24
percent	6.15	93.85	13.84	86.15	63.07	36.93

Part 2 States and Problems in learning via e-learning System in the 20799: Professional Experience in Curriculum and Instruction

States and problems in learning via e-learning system were presented in table 2. States in learning via e-learning system in the 20799: Professional Experience in Curriculum and Instruction were as shown in table 2. Problems in learning via e-learning system in the 20799: Professional Experience in Curriculum and Instruction were as shown in table 3.

States of learning via e-learning System in the 20799

The results of studying states in learning via e-learning system in the 20799: Professional Experience in Curriculum and Instruction were as follows; 30.77% of learners had an experience in using internet 3 – 4 years, 93.85% of learner have a computer, 63.00% of learner have PC, 37% of learner have note book, 96.92% of learner used Thai language for studying via e-learning or internet, 42% of learner study via e-learning at home, 36.92% of learner study via e-learning after dinner, 36.92 % of learner exchange idea or comment with your friends for 30 minute, 45.57% of learner get clear understanding about activities of this course by reading explanation in activities plan, 52.31% of learners got benefit from doing activities via e-learning in much level. Detail of result was shown in table 2.

Table 2 States and Problems in Learning via e-learning System.

list	Percent			
1. Experience in using internet	≤1 years 10.77	1 – 2 years 29.23	3 – 4 years 30.77	≥5 years 29.23
2. do you have a computer?	No 6.15	yes 93.85	-	-
3. model of your computer	PC 63.00	Note Book 37.00	-	-
4. what language do you use for studying via e-learning or internet?	Thai 96.92	English 3.08	-	-
5. where did you study via e-learning?	at home* 42.00	at office 11.92	at internet cafe 8.08	both home and office 38.00
6. what time do you study via e-learning?	Before work 2.86	After lunch 18.57	After work 24.28	After dinner 6.92
7. how long did you exchange idea or comment with your friends?	10 – 15 mn. 13.85	15 – 20 mn. 21.54	20 – 30 mn. 27.96	≥30 36.92
8. How much times in a month did you study in course 20799 via e-learning?	1-2 times 9.37	3-5 times 26.56	6-8 times 23.44	≥ 8 times 40.63
9. Where did you get clear understanding about activities of this course?	Explanation in activities plan 45.57	Explanation in e-learning 24.05	Friend's explanation 11.39	Advisor's explanation 18.99
10. benefit from doing activities via e-learning	little 3.08	medium 24.61	much 52.31	most 20.00

Problems of learning via e-learning system in the 20799

Problems of learning via e-learning system in the 20799: Professional Experience in Curriculum and Instruction were 3 levels: high, medium and low. Problems in high level were learner's opportunity in using computer (36.92%), facility to doing activities via e-learning system (32.35%), log in for doing activities via e-learning system (32.31%), preparing for chatting with friends on web board (29.23%)

Problems in medium level were receive document and interaction with friends (44.62%), learner's abilities in study and searching via e-learning (41.54%), period of time for doing activities on web board (41.54%), understanding about doing activities via e-learning system (41.53%), period of time for chatting (40.00%), sending message while chat in web board (35.38%), Access of web board (33.85%), preparing for chatting with friends preparing for chatting with friends (32.31%)

Problems in low level were received the information about step and method of doing activities via e-learning system (33.85%) receive document and interaction with lecturer groups (32.31%) searching through STOU's web page searching through STOU's web page (32.31%) mean of overall was 2.5970 and standard deviation was 0.1273. it shown that problem of learning via e-learning system of learners was in medium level. Detail of result was shown in table 3.

Table 3 Problems in learning via e-learning system

List of problems	percentage of each level				
	highest	high	medium	low	lowest
1. learner's abilities in study and searching via e-learning	1.54	27.69	41.54*	23.08	6.15
2. learner's opportunity in using computer	9.23	36.92*	16.92	21.54	15.39
3. facility to doing activities via e-learning system	4.62	32.35*	27.94	24.61	7.35
4. preparing for chatting with friends	7.69	26.15	32.31*	27.69	6.16
5. preparing for chatting in web board	9.24	29.23*	26.15	27.69	7.69
6. received the information about step and method of doing activities via e-learning system	4.62	32.31	24.62	33.85*	4.62
7. understanding about doing activities via e-learning system	4.62	23.08	41.53*	26.15	4.62
8. log in for doing activities via e-learning system	3.08	32.31*	29.23	26.15	9.23
9. Access to course's web board	9.23	30.77	33.85*	23.08	3.08
10. sending message while chat in web board	9.23	27.70	35.38*	18.46	9.23
11. searching through STOU's web page	6.15	27.70	26.15	32.31*	7.69
12. period of time for chatting	3.08	16.92	40.00*	32.31	7.69
13. period of time for doing activities in web board	3.08	21.53	41.54*	29.23	4.62
14. receive document and interaction with friends	4.62	12.31	44.62*	27.70	10.75
15. receive document and interaction with lecturer groups	9.23	18.46	27.70	32.31*	12.30
Mean of problems			2.5970		
S.D.			0.1273		

Part3 supporting approach.

Results of this study in part 3 were as follow; There're 27.70% of learners suggested to show how to access and process application of e-learning system on web page of School of Educational Studies. 22.90% suggested to orientation about how to use e-learning system. 19.00% suggested to show process of access: how to log in and how to doing activities as required in activities plan. 17.18% suggested to show warning symbol on web page in each session of activities. 13.22% suggested to use reinforcement through web page of School of Educational Studies.

Other suggestion were as follows;

Showing log in process on the top of web page and gave log-in manual to learners on orientation day or sent log-in manual together with series of subject document. Set a session for learning about using e-learning system on orientation day. Sent feedback for all of answers. Add time for more chatting. Add more period for chatting on a day; 12.00 – 13.00, after work or after dinner (16.00-20.30) and add a period on chatting for thesis advice.

Results of the study about supporting approach were shown in table 4

Table 4 supporting approach for enhance using e-learning system.

supporting approach for enhance using e-learning system	percent
Orientation about how to use e-learning system.	22.90
Show how to access and process application of e-learning system on SES's web page	27.70
Show warning symbol on web page in each session of activities	17.18
Suggested to show process of access: how to log in and how to doing activities in activities plan.	19.00
Use reinforcement through SES's web page	13.22

Discussion

By the research finding that learners (30.77%) had experienced in using internet for 3-4 years and most of learners (93.85%) had own computer because of their awareness about their own learning development and their purchasing power. Because of low price, low maintenance cost, therefore 63% of learners had personal computer. 96.92% of learners search via Thai language according to little knowledge of a foreign language and little searching skill by English language. 42% of learners search via e-learning at home, 36.92% of learner search after dinner – before go to bed because of most of learner work during the day; searching time up to 30 minutes; more than 8 times a month (40.63%)

Students understand the explanation in activities (45.57%) may be due to the preparation of the activity is detailed with clear procedures and they can study at anywhere and anytime. It is 52.31% of learner indicating that the benefits of e-learning activities is at high level.

Problem of learning via e-learning system in in the 20799: Professional Experience in Curriculum and Instruction Course of Graduate Students in Curriculum and Instruction Program are in 3 level : high, medium, and little.

Problems of learning via e-learning system in high level are follow: learner's opportunity in using computer (36.92), facility to doing activities via e-learning system (32.35), log in for doing activities via e-learning system (32.35%) log in for doing activities via e-learning system (32.31%), preparing for chatting in web board (29.23%)

Problems of learning via e-learning system in medium level are as follows: receive document and interaction with friends (44.62%) learner's abilities in study and searching via e-learning (41.54%) understanding about doing activities via e-learning system (41.53%) period of time for chatting (40.00%) sending message while chat in web board (35.38%) Access to course's web board (33.85%) preparing for chatting with friends (32.31%)

Problems of learning via e-learning system in low level are as follows: received the information about step and method of doing activities via e-learning system (33.85%) The least problem is searching through STOU's web page(32.31%) and receive document and interaction with lecturer groups (32.31%) may be because lecturer groups often contribute and interact with learner during the scheduled time and there are preparation of the information related to searching through web page presented on the web before activities time.

The ranking of problems in learning via e- learning System in the 20799: Professional Experience in Curriculum and Instruction Course of Graduate Students in Curriculum and Instruction Program are as follow: the first is learner's opportunity in using computer, the second is facility to doing activities via e-learning system, the third is log in for doing activities via e-learning system. Considering all three problems are seen as the first problem

is a problem that each student will need to solve problems on their own but the third problem is about to sign up to e-learning activities through the issues related to the planning and management of the staff of the university.

The information related to the faculty and staff to determine the activities that require interactions between learner and lecturer should be taken into consideration to determine the period of activity. It should be good to presented to the relevant staff in order to determine the cause of the problem and the solutions to be made available to learner who will continue to practice effectively.

Recommendations

For application; Present the result of this study to School of Educational Studies and executive committee of course 20799 in order to consideration about next activities plan and consistent with learner center principle. In order to supporting using e-learning system; should be regard of learner context and availability of staff.

For next study; Study in same issues in next semester. Study in cause of problems in login and access e-learning system and study about state and problem in learning vie e-learning system of other course.

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The Efficiency Evaluation of an Intensive Tutorial Session on Principles of Advertising and Public Relations Course



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Abstract

This research aimed to evaluate the efficiency of intensive tutorial sessions based on 1) instructors' utilization of the instructor's handbook; 2) the suitability of the teaching process; 3) students' utilization of the handouts; 4) students' learning achievement; and 5) the relationship between the students' learning achievement from attending the intensive tutorial session and their final examination results. The methodology combined quantitative and qualitative research. The population was the students who attended the intensive tutorial sessions for the Principles of Advertising and Public Relations course in the first semester of the 2012 academic year, consisting of 32 students. Data collection tools consisted of an in-depth interview form and a questionnaire. Additional data consisted of the students' marks from post-test self-evaluation exercises and final examination scores. The findings showed that the instructor utilized the handbook for teaching and indicated that it was suitable and sufficient. The students were very satisfied with the teaching process, including scheduling, location and cost. Students were highly satisfied with the instructor, who explained the content clearly, gave students an opportunity to ask questions and gave clear answers. The students were very satisfied with the handouts and indicated that the content was clear, helpful and covered every unit, and the test questions covered every unit and were clearly worded. The mean post-test score of the students who attended the intensive tutorial sessions was higher than their mean pre-test score to a statistically significant degree. All the students who attended the intensive tutorial session passed the final examination.

Keywords: efficiency evaluation; intensive tutorial session; principles of advertising and public relations course

Background and Significance of the Problem

Sukhothai Thammathirat Open University uses a distance learning system that enables students to study by themselves using mixed media course modules, without having to attend classroom lectures. Tutorial sessions provided by the university are an important academic service that supplements learning through the distance learning system, because they provide students with the opportunity to meet with instructors and ask questions. The tutorial sessions focus on parts of the course content that are particularly difficult to understand.

Intensive tutorial sessions are a special kind of tutorial session because students are given points for attending, which counts as part of the score for their final grade in the course. Students have to pay extra to attend and they have to register in advance. Two intensive tutorial sessions are held during the academic term, each lasting two days (on a Saturday and Sunday), for five hours each day.

The Principles of Advertising and Public Relations course is a core course that is required for all Bachelor's degree level Communication Arts students. In the first semester of the 2012 academic year, 303 students enrolled in the course. Statistics showed that for the previous three years an average of 56.88% of the students who signed up did not pass the course (Sukhothai Thammathirat Open University Office of Registration, Records and Evaluation). Thus, on 14 March 2012 the university's tutorial session committee resolved to have the School of Communication Arts offer intensive tutorial sessions for this course.

The course production and management committee in charge of the Principles of Advertising and Public Relations course then prepared student handouts and an instructor's handbook for the intensive tutorial sessions, as well as self-evaluation exercises. The first intensive tutorial sessions were held on 6-7 October and 13-14 October, 2012. The purpose of this research was to analyze and evaluate the outcome of these intensive tutorial sessions with an aim to improving the efficiency of this supplementary academic service, the student handouts and the instructor's handbook.

Objectives

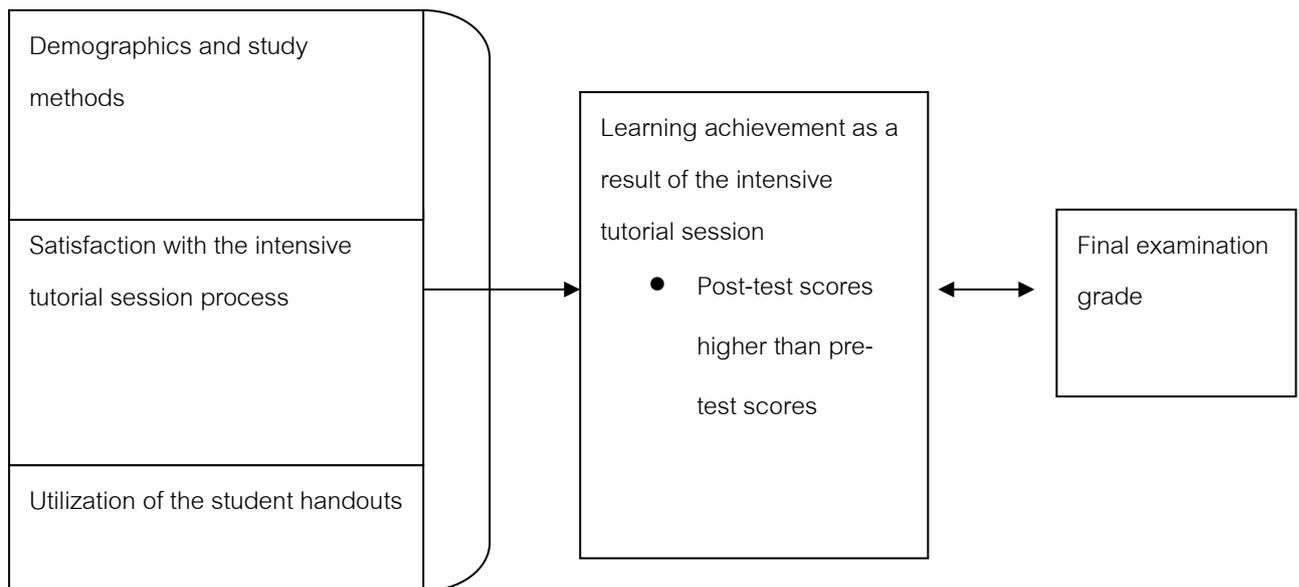
1. To study instructors' utilization of the content in the instructor's handbook
2. To study the suitability of the intensive tutorial session process
3. To study students' utilization of the student handouts
4. To study students' learning achievement after attending the intensive tutorial sessions

The conceptual framework and hypotheses are as follows:

Instructors

- Utilization of the instructor's handbook
- Suitability of the day, time, duration and location of the intensive tutorial sessions
- Compensation
- Coordination and facilitation for the instructors

Students



Research hypotheses

1. Students' mean post-test score will be significantly higher than their mean pre-test score at confidence level 0.05
2. No less than 70% of the students who attend the intensive tutorial sessions will pass the final exam for the course

Research method

A mixed method was employed. Qualitative data were collected via in-depth interview with the instructor who taught the intensive tutorial sessions. Quantitative data were collected via a questionnaire administered to students, along with the students' post-test scores from the self-evaluation exercises and their final examination scores.

Study population

1) For the qualitative portion of the research, the population consisted of the instructors assigned to teach the intensive tutorial sessions. However, of the 303 students who enrolled in the Principles of Advertising and Public Relations course in the first semester of the 2012 academic year, only 32 registered for the intensive tutorial sessions, so, according to the university's rules for intensive tutorial sessions, there was only one classroom, and only one instructor (the author) was assigned to teach and evaluate the sessions.

2) For the quantitative portion of the research, only the students who registered for the intensive tutorial sessions, attended both sessions, filled in the self-evaluation after the tutorial sessions and completed all the post-tests for every unit in the course were selected. This comprised 28 of the 32 students who registered.

Research tools

The research tools utilized in this study consisted of an interview form for an in-depth interview with the instructor and a questionnaire to evaluate the students' satisfaction with the intensive tutorial session. The questionnaire had three parts: 1) general demographical information on the student; 2) satisfaction with the intensive tutorial session, opinions on the suitability of different components of the tutorial session process, and utilization of the student handouts; and 3) open-ended questions to let students give suggestions on how the intensive tutorial sessions could be improved.

Results and discussion

Characteristics of students who attended the intensive tutorial sessions

Most of the students were female (57.1%), in the 20-30 age group (53.6%). Most of them (71.4%) were enrolled in the Principles of Advertising and Public Relations course for the first time. The largest group (42.9%) was employed by private sector companies, and 64.3% said that the work they were doing was not directly related to the course topic.

As for preparation before attending the intensive tutorial sessions, most of the students said they had read some of the course textbook, but 42.9% said they had read only 1-5 units. The greatest number of students (53.6%) said they only read the textbook and did not make use of other supplementary media for the course. The most common problem they reported with their study was difficulty in understanding the material when reading by themselves (44.7%).

Results according to the research objectives

The instructor used the instructor's handbook, which included a summary of the content of all 15 units, to prepare for teaching the intensive tutorial sessions and gave the opinion that the content in the handbook was suitable and sufficient for the number of hours and days of the intensive tutorial session. The instructor felt that the pre- and post-tests should be more parallel and should have a more appropriate number of questions to cover all the objectives of each unit. As for coordination and facilitation of the tutorial sessions, the instructor reported that it was convenient. On the question of compensation, the instructor said the payment was at the usual rate paid by the university, which should be increased to match the cost of living.

Although the instructor felt that the instructor's handbook was suitable and useful, in this case the only instructor who evaluated the instructor's handbook was the author, who was also involved in the development of the handbook and thus might not be impartial. So if a larger number of students register for the intensive tutorial sessions in the future and more instructors are assigned to teach, it would be beneficial to evaluate the instructor's handbook again.

The teaching process used at the intensive tutorial sessions was as follows.

For the first day, the instructor taught the material in units 1-8.

- First, the instructor asked the students to do the pre-test without looking at the handouts. Then the instructor gave the answers to the pre-test questions.
- Next the instructor taught each unit, one at a time. After each unit the instructor asked the students to do the 5 post-test questions for each unit, and they were allowed to look at their books. Then the instructor gave the correct answers and explained the relevant subject matter again for emphasis.
- On the second day, after all eight units had been taught, the instructor asked the students to do the self evaluation post-test (closed book), then gave the correct answers and re-emphasized all the important points. Lastly, the instructor gave a summary of all the subject matter and invited the students to ask questions.

The second intensive tutorial session covered units 9-15 and followed the same process as above.

Regarding the assessment of the suitability of the intensive tutorial session process and students' utilization of the student handouts, it was found that **overall the students were very satisfied with the intensive tutorial sessions** ($\bar{X} = 4.33$, $S.D. = 0.65$). The students' satisfaction ratings of specific aspects of the intensive tutorial sessions were as follows.

Student handouts Students reported they were **very satisfied** with the handouts for the first and second intensive tutorial sessions, giving high scores for clarity of content, comprehensiveness of content, utilization of the handouts during the intensive tutorial sessions, and the level of difficulty of the handouts.

Pre- and post-tests and exercises Students reported they were **very satisfied** with the pre-tests and post-tests for the first and second intensive tutorial sessions. They agreed that the tests covered all the content in each unit, the number of questions was appropriate, the number of self evaluation exercises were appropriate, the questions were clearly worded, and the difficulty level was appropriate.

The student handouts and post-tests were useful not only during the intensive tutorial sessions but also as a tool for the students to review and prepare for their exams. The instructor allowed the students to open their books while taking the post-test for each unit so that they could review on their own and also ask the instructor right away if they were not clear on a certain point.

Instructor The students reported that they were **highly satisfied** with the instructor in the categories of congeniality, answers questions clearly, gives students the opportunity to ask questions, and explains things clearly.

Time, duration, location and cost The students were **very satisfied** with the time of the intensive tutorial sessions on Saturday and Sunday; the duration of two days per session, five hours per day; the location; and the cost of 650 baht.

The mean evaluation scores show that the students were very satisfied or highly satisfied with every aspect evaluated. Even though students had to pay extra to attend the intensive tutorial sessions, the fact that attending would count for 30% of their final grade was a great incentive for students to attend. The instructor observed that the students who attended were very motivated. The university should consider having all the schools provide more intensive tutorial sessions, especially for courses that are quite difficult to understand. Students at Sukhothai Thammathirat Open University come from diverse backgrounds and have a wide range of learning abilities. Some are able to understand all the course material simply from reading the textbooks by themselves, but many have difficulty understanding the textbooks. The data from this study showed that more than 40% of the students stated that one obstacle to their study was that they could not understand all the content on their own. If they attend tutorial sessions with an instructor and also get part of their score from attending, then there is a greater likelihood that the students can pass the course. Providing more tutorial sessions could help reduce the dropout rate. Intensive tutorial sessions are an alternative learning media that the students can choose, which conforms to the philosophy of student-centered learning.

As for the benefit students derived from attending the intensive tutorial sessions, both the students and the instructor agreed that the sessions were very beneficial for helping create greater understanding of the subject matter and in applying theoretical knowledge in the examinations. The instructor said:

“I could see that the students were very interested and very intent on learning, especially those that had failed the course before or those who need to complete this course as their last requirement before graduating. Since they would get 30% of their final grade from attending the intensive tutorial sessions, it would give them a better chance of passing the course.”

The students’ learning achievement results, based on their post-test scores compared to their pre-test scores, and based on their final examination scores, are shown in Tables 1 and 2.

Table 1 Comparison of students’ mean pre- and post-test scores from the first intensive tutorial session for the Principles of Advertising and Public Relations course

Evaluation	Students	Mean score	Standard deviation	t	Sig.
Pre-test	27	4.52	1.74	-5.50	.000*
Post-test	27	7.22	2.15		

* statistically significant at confidence level .05

Table 2 Comparison of students’ mean pre- and post-test scores from the second intensive tutorial session for the Principles of Advertising and Public Relations course

Evaluation	Students	Mean score	Standard deviation	t	Sig.
Pre-test	27	9.59	3.00	-5.42	.000*
Post-test	27	11.19	2.79		

* statistically significant at confidence level .05

The data shows that:

- For the first intensive tutorial session, the participants' mean post-test score was 7.22 out of a possible 9 points, compared to their mean pre-test score of 4.52 points out of a possible 9 points. For the second intensive tutorial session, the participants' mean post-test score was 11.19 out of a possible 14 points, compared to their mean pre-test score of 9.59 points out of a possible 14 points. The research hypothesis was supported, because at confidence level .05 the difference in the mean pre-test and post-test scores is statistically significant.
- All 27 students (100%) who attended both tutorial sessions passed the final exam for the course. The second research hypothesis (that no less than 70% of the students who attend the intensive tutorial sessions will pass the final exam for the course) was also supported.

The results show that the provision of well-designed intensive tutorial sessions with quantifiable results, combined with sincere intent to learn on the part of the students, can be an important factor leading to successful learning achievement. Making attendance at the tutorial sessions count for 30% of the student's final grade is also a strong incentive and can help the students pass the course.

Conclusion

1. The instructor utilized the instructor's handbook, which included summaries of the subject matter in each unit, to prepare for the intensive tutorial sessions, and the instructor found that the handbook was suitable and sufficient.

2. The students were highly satisfied with the intensive tutorial session process and with the schedule of two sessions, each lasting two days on a weekend with five hours of class a day. The students were highly satisfied with the instructor's ability to explain the material clearly, to give students the opportunity to ask questions, to answer questions clearly, and with the instructor's congeniality.

3. The students were satisfied with the handouts for both intensive tutorial sessions and felt that the content was easy to understand and covered the subject matter in every unit of the course. The students made use of the handouts and rated the difficulty level as appropriate. They were satisfied with the number of post-test questions and the comprehensiveness of the questions.

4. The mean post-test score of the students who attended the intensive tutorial sessions was higher than the mean pre-test score to a statistically significant degree. All of the students passed the final exam for the course.

Recommendations

1. The School of Communication Arts should consider providing intensive tutorial sessions for more courses that are difficult to understand just from reading the text, especially the core courses, because it would give the students an opportunity to learn directly from an instructor and ask questions. Setting the proportion of their final score that the students get from attending the intensive tutorial sessions at 30% makes it easier for the students to pass and could help reduce the dropout rate, which is rather high in the School of Communication Arts. The data from the first year that the intensive tutorial sessions were offered for the Principles of Advertising and Public Relations course showed that all the students who attended the intensive tutorial sessions passed the course.

2. More public relations activities should be used to inform students about the intensive tutorial sessions, because in the first semester of the 2012 academic year only 32 of the 303 students enrolled in the Principles of Advertising and Public Relations course registered for the intensive tutorial sessions.

3. The registration requirements should be changed to be more flexible. At present the university requires the students to register in advance and then arranges a classroom if there are enough students. If only a small number of students in the provinces register, the university asks them to join the group in Bangkok, which entails additional travel expenses for those students. If they cannot attend then the university does not return their registration fee. This is different from the regular tutorial sessions that the university provides free of charge as a supplementary medium in the distance education system. To make it more convenient for the students, the university should be more flexible by allowing them to notify the university of their intention to join the intensive tutorial sessions first, and then after the number of students is known by a set deadline, the university can arrange the classroom or classrooms and then let the students register and pay.

4. The committee in charge of the Principles of Advertising and Public Relations course should revise the pre- and post-test questions in the student handouts to make sure they cover all the material in each unit.

5. If more instructors are needed to teach intensive tutorial sessions for this course in the future, then they should be given an orientation so that they will all follow the same guidelines.

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Learning Support Services in the Distance Education System of Sukhothai Thammathirat Open University



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Abstract

This research was conducted with the purposes to 1) determine the framework of research for developing the learning support services in the distance education system of STOU which include sub-research projects in individual aspect of the services; 2) synthesize results of the study in the sub-research projects; and 3) propose the guideline for developing the whole and each aspect of the learning support services in the distance education system of STOU.

This study started from determining scope of the main and the sub-research projects by distance education scholars. Then the sub-research project in each aspect of the learning support services in distance education were proposed and carried out. After that the results of all sub-research projects were analyzed and synthesized in order to propose the guideline for developing the learning support services in the distance education system of STOU.

The main findings showed that the proposed guideline for developing the learning support services included the direction for improving the whole and each aspect of the learning support services. It mainly focused on the learners and providing each aspect of the services to serve the learners throughout the process of their study.

The results of the study will be able to apply for improving the learning support services of the University in order to enhance students learn successfully at STOU.

Keywords: Learning Support Services, Distance Education, Sukhothai Thammathirat Open University

Introduction

Sukhothai Thammathirat Open University (STOU) was established in 1978 as an eleventh state university. The university follows lifelong education principle in extending higher education opportunity to all, especially working people and those who lack of chance to study in the conventional universities. The main aims of the university are to upgrade qualification of working people and to develop quality of life of general people. The university employs multimedia distance education system which includes printed media, radio programmes, television programmes, CD, VCD, e-learning, face to face tutoring and practices.

Through distance education system of the university, Thai people in every local area through out the country can reach higher education opportunity without the limitation of age, sex, occupations, social status and the distance. Each year the new enrolment is about 60,000 people.

For example in the year 2010, the new enrolment was 58,019 and in the year 2011, the new enrolment was 56,976 (Planning Division, STOU, 2012). Since the establishment of the university, the total number of students is over two millions. Among them, over 90 percents are working people who have no chance to attend class-room education. From interviewing some graduates of the university, they said that without the distance education of the university they would never have any chance to obtain higher education.

Even though distance education has a number of advantages, especially on extending equal education opportunity to all, but some limitations still be found. They are for examples: students study by themselves through media without regularly meeting with teachers and peers like those in the class-room system, students have to have good self discipline for self study, they have to manage their time properly from their work and other activities for study, also students have to keep themselves up to date with the importance study schedule such as registration time, tutoring time and examination time. Malan and others (Malan et al,1991) stated that in distance education system, teachers and students communicated through media and technology such text-books, radio programmes, television programmes, internet, etc. The problems found were those students still felt that they were far from teachers and their institutions. Then some decide to leave their study. Therefore, the institutions needed to have a learning support system to enhance interaction between teachers and students. This idea is accepted by a number of educators. They agreed that the learning support services was essential in distance education system. For example, Tait (1995) proposed that learning support services should include several kinds of services. They were:(1) support service for teaching and learning which covered academic counseling, guidance , tutoring, etc.; (2) support service for information and communication which included information service centres, public relations, several channels for communication between students and teachers; (3) support service for solving management problems which included registration problems, delivering of learning materials, etc. Reid, J. (1995) added that learning support services should focused on providing related information, academic guidance and counseling, and easy access to the university services. These services should be provided to students throughout the process of their study: before, during and after their study.

Like other open universities, STOU realizes that learning support services is a significant factor of distance education. STOU still faces the problem of student dropping out, especially the first year students. Moreover, some are regarded as the at risk group. There were several factors that caused students dropped out. For examples: students did not pass examination, they lacked of learning skills in the distance education, they faced difficulty in contact with the university, they could not manage their time properly, etc. (Sungsri and others, 2012). These findings indicated that the available learning support services is still needed to be improved in order to serve the learners needs and solve their problems. In order to obtain an appropriate guideline for improving the learning support services of the university, the author and the team has conducted this study with the following objectives.

Objectives of the study

1) to determine the framework of research for developing the learning support services in the distance education system of STOU which include sub-research projects in individual aspect of the services;

- 2) to synthesize results of the study of the sub-research projects; and
- 3) to propose the guideline for developing the whole and each aspect of the learning support services in the distance education system of STOU.

Method of the study

This study is the main research project which covers 5 sub-research projects. The study was carried out through 5 steps.

Step 1. Determining the framework of the main project and sub-research projects.

The researchers invited 8 experts in distance education for a seminar to determine the framework of research for developing the learning support services in distance education of the university in both the main project and the sub-research projects. The 5 sub-research projects were proposed.

Step 2. Co-ordination with researchers to carry out the 5 sub-research projects.

The researchers of the main project contacted some of the STOU staff to be the researchers of the 5 sub-research projects. The researchers of each sub project had meetings with the researchers of the main project on the objectives, the scope and the plan of each project. Then they carried out their research.

Step 3. Concluding and synthesizing the results of the 5 sub-research projects to develop a guideline for developing learning support services.

After each sub research project was finished, the researchers of the main project concluded the results of them. Then the results were synthesized together with the information from the literature to develop a guideline for developing the learning support services of the university.

Step 4. Proposing the guideline for developing learning support services of the university to Researchers of sub research projects.

The guideline for developing learning support services of the university was proposed at a seminar with 15 researchers of the 5 sub research projects. The feedback obtained was employed to adjust the guideline.

Step 5. Proposing the guideline to the experts in distance education.

Nine experts in distance education were invited for a seminar to verify the proposed guideline from step 4. Advice and suggestions from the experts was employed to adjust the proposed guideline again.

The main findings

The main results of the study were:

1. The framework of research for developing the learning support services in the distance education system of STOU. The results from a seminar among 8 experts in distance education showed that 5 sub research projects were proposed in order to get the findings to improve learning support services of the university. They were: Project 1. A model of registration in distance education system of STOU; Project 2. A delivery system of learning materials of STOU; Project 3. A framework of Information services for students; Project 4. A framework of providing learning skills for students; and Project 5. A guideline for providing education services of the provincial centres.

2. Results of the study in 5 sub-research projects.

2.1 Sub research project 1: A model of registration in distance education system of STOU. The results showed that currently, the university provided several channels for students registration. The main suggestions to the registration model were: the university should keep these available channels continue and should add the channels of registration through mobile phone and through pay at post; and the online data base should be developed to support the registration system in order to make the registration process accuracy and quickly.

2.2 Sub research project 2: A delivery system of learning materials of STOU. The results of the study proposed that: the process of learning materials production should be reviewed in order to let them finish on time; learning materials should be delivered from both the main campus and the regional centres of the university across the country; and learning materials should be registered posted.

2.3 Sub research project 3: A framework of Information services for students. The results showed that: there were a few offices of the university provided information services which sometimes caused the delay and the repeat of the information provided; the infra structure of the information services was not yet completed; and lacked of data base for serving the information services. The university should develop the data base which can link with the data of every related departments in order to provide effectively one stop service for students.

2.4 Sub research project 4: A framework of providing learning skills for students. The study found that most of students needed learning skills development. The study proposed that the university should provide advisor for each student, set up a learning skill development centre, and analyze learning skills of students at the first semester in order to provide appropriate learning skills development for them.

2.5 Sub research project 5: A guideline for providing education services of the provincial centres. The results of the study showed that the provincial centres can provide only some kinds of the services. This because they belong to the secondary school in each province. Even though these secondary schools have tried their best to provide good coordination and assistance to the university but with the limitation of staff and time, they can provide only some services. The study proposed that, to extend the learning support services to reach more students in local areas, the university should set up her own study centres at provincial level and/or district level.

3. The guideline for developing the whole and each aspect of the learning support services in the distance education system of STOU.

3.1 The guideline for improving the whole learning support services system proposed were:

1). Learning support services should be provided throughout the process of student learning: at pre-learning stage, during learning stage and at evaluation stage.

2). The university should provide learning support services in various forms in order to serve the needs of different groups of students.

3). The university should set up” a distance education study centre” to create, develop, research and extend knowledge about distance education to the university staff and the public.

4). The university should decentralize the administration authority to the regional centres so that they have authority to design and provide support services suitable to local students in each area.

5). The university should provide the data base network which every involved departments, e.g. the regional centres, can access in order to have useful data to provide the support services to students.

3.2 The guideline for improving each aspect of the learning support services were:

1). The guideline for developing the registration system were: registration through pay at post and through mobile phones should be promoted, a centre for providing registration advice should be established, and the data base for supporting the registration system should be set up.

2). The guideline for developing the delivery system of learning materials were: learning materials should be registered post to students, students can receive the information about posting their learning materials by SMS, and the delivery system should be made available both at the main campus and at the regional centres.

3). The guideline for providing the Information services to students were: The university should set up a special unit to responsible for providing information service to students, the data base, which linked the data of every related agencies, should be developed to support the information service system, information should be made available through various channels and be easy to access by students.

4). The guideline for providing learning skills for students were: learning skills development should be provided to students since the first year of study, a learning skills development centre should be set up, learning skills development activities should be made available on the university's website, and advisors should be assigned to students.

5). The guideline for providing education services of the provincial centres were: the University should set up education centres at provincial level and/or district level, each centre should have one full time university staff available, each centre should be the location of student club in that area, and network with other agencies in each local area should be created more.

Discussion

The study provided the guideline for developing learning support services in distance education system of the university which composed of 5 aspects. Each of them can be brought to the discussion as follows:

1). For the registration system, the main guideline proposed was having several channels for registration and registration by pay at post were encouraged. This results relates to the study of Pinyopanuwat, R. and others(2005) which found that students were highly satisfied with the provision of several channels for registration. For the pay at post registration, students agreed that it made their registration arrive the university safely and quickly.

2). For the learning materials delivery system, the main guideline proposed were: learning materials should be delivered through registered posted and once they already posted, students should be informed by SMS. The author had a chance to interview students about this service. Students stated that they liked registered posted because it guaranteed that learning materials were not lost. They also liked the SMS message very much because it let them have the information about their learning materials quickly.

3). For the Information service, the main guideline proposed was that the university should has a special unit to provide this kind of service and should set up a data base to serve this service. This results relates to the study of a number of educators. For example Allen(1993) mentioned about the main factors which assisted student retention in distance

education and one of them was obtaining clear information about the study programmes. Therefore, information service is very important for the distance learning.

4). For learning skills development for students, the main guideline were the university should set up a learning skills development centre and also provided advisors to assist students learn. This findings are similar to the results of some studies. For example Shama(2005) has proposed strategies for keeping student retention and one of them was providing learning guidance. Moreover, the study of Sungsri and others (2008) found that distance learning students needed assistance in learning skills. It was very important factor to help them learn successfully.

5). For the services of the provincial centres, the main guideline was the university should establish the education centres in local areas such as at the provincial level and district level. This result relates to the study of Tadang and others (2003). They have proposed that the open universities should have local learning centres available across the country in order to serve more students in the local areas.

Conclusion

It is recognized that learning support services is an essential factor for the success of students in the distance education system. Therefore, the distance education institutions should identify the types of learning support services which are needed by their students and provide the proper services for them. This study has identified the main learning support services which were necessary for STOU' students. Then the guideline for developing those services were proposed. Even though this study focused on STOU but the author believes that, with a proper administer, the results is possible to apply for other open universities.

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The Distance Education Model for Professional Development in Social Workers



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Abstract

Social workers delivery social services to serve both strengthening human functioning and enhancing effective of social structures. Thailand nowadays, there are huge amount of people in difficulty living. But professional social workers are in severe shortage. According to the law, they need to professional development. They feel inconvenient to leave their jobs to attend classroom training, that clause them a work overload when they return back to work.

This research aimed to develop the Distance Education Model for Social Workers. Population is social workers around Thailand. There were 55.1 percent Of 234 samples needed distance education for professional development. In trying out the developed distance education model for social workers, 10 social workers from these subjects were randomly selected to be the experimental group. This model comprised 4 stages (1) The preparing stage: the researcher reviewed document and attended related trainings. (2) The model developing stage: the researcher developed content and designed systems. (3) The learning stage: started with registered in weblog. Next, learners did pretest in website. Then, studied content in books and did exercises in CD-ROM. They interacted with each other and instructor through weblog. Finally, learners did posttest in website. (4) The evaluation stage: the result of 1 month follow up showed that knowledge and skill posttest scores were higher than pretest significantly at .05 level. Learners were satisfied with the Distance Education Model for Social Workers at high level. Knowledge and skill could be applied to work at the highest level.

The developed model facilitated potential of social workers toward more professionalism.

Key words: Model, Distance education, Professional development, Social worker

1. Introduction

Social workers strive to promote people's quality of life. They deliver social services to both strengthening human functioning and enhancing effectiveness of social structures. Thailand currently has 1,506 social workers distributed through government sectors and non-government organizations. But there are a huge amount of difficulties: disadvantaged, vulnerable, oppressed and people living in poverty. This is supported by the following statistic: 37,937 in 2007, 34,894 in 2008, and 32,090 in 2009 (Ministry of Social

Development and Human Security, 2012: <http://www.m-society.go.th>). When comparing these groups with the number of social workers, the ratio of social workers is very low. Therefore, professional social workers are in severe shortage. Normally a professional roles, it requires three-years of professional evaluation requirement courses according to section 7 of the Social Welfare Promotion Act 2003 B.C.. This forces social workers to develop their knowledge and skills continuously, which enables them to have competency to intervene and empower their clients' human functioning in an increasingly complex society.

In Thailand, professional development for social workers does not have regulated standard. All professional development trainings are arranged in classrooms. But social workers feel inconvenienced with this method. Classroom training can cause them to have to leave their jobs, and creates a work overload when they return back to work (Aksornprom, 2009: 48).

In foreign countries, especially the developed, distance education is recognized among school of social work and by the Commission on Accreditation as (1) a valuable means of meeting the educational needs of nontraditional students including those from remote areas; (2) a highly efficient means of delivering education, given the reductions in technology costs; and (3) an effective means of achieving desired education outcomes, as demonstrated by numerous studies. By the year 2000, 20 percent of social works education was done using distance education, an increase of 6 percent over the previous 5 years (Siegel, Jennings, Conklin, & Flynn, 2000; as cited in Abels, 2005: 31)

Therefore the development of distance education model for social workers will give opportunities for social workers in Thailand to enhance their knowledge and skills continuously. This will enhance their readiness for professional standard evaluation.

2. Objective

This research aimed to develop the distance education model for social workers' professional development.

3. Methodology

The research and development process consists of 7 stages:

3.1 Literature reviewed stage: reviewed literature about social work, distance education, and model development. Also attended 4 educational technology and media workshops: (1) Teaching via D4L+P (T5 Model); (2) e-Learning Activity Design; (3) Knowledge Management by wiki; and (4) Product e-Book with Adobe Acrobat.

3.2 Needs assessment stage: a survey was conducted. The population was 1,506 social workers around Thailand. The sample size was 234, using multi-stages random sampling. The instrument, a three-part questionnaire, was developed by the researcher. Part one, dealing with population data, has six statements. Part two, assessing social workers' needs in professional development through distance education, is made up of 5 statements. Part three, consisting of nineteen statements, deals with social worker knowledge and skills. There are 30 statements altogether in the questionnaire. Answers in part two and three were rated on a three-point Likert scale, and ranged from strongly disagree (1) to strongly agree (3). A test of reliability with Conbrac's Coffigency Alpha equaled .84. Data was collected by mail, and analyzed using statistical frequency, percentage, average, and standard deviation.

3.3 Creating research conceptual framework stage: integrated data from stage 3.1 and 3.2 to create.

3.4 Model developing state: applied research to conceptual framework to develop a prototype of distance education for social workers.

3.5 Test of model validity stage: arranged focus group to collect data. Samples were 8 experts in social workers, educational technology and media, curriculum and teaching, and research and curriculum development. Data was analyzed using content analysis.

3.6 Trial model stage: purposively selected 10 samples from needs assessment stage (3.2), to participate in experiment. They were sorted by 4 requirements: (1) had at least a bachelor of social work, (2) had been a social worker at least 1 year, (3) were able to use computer and internet, and (4) were willing to be a subject.

3.7 Test of model quality stage: collected data from participants in trial model stage (3.6) by 2 methods. The first was knowledge and skills assessment, using pretest and posttest parallel test set. Test of reliability with Cronbach's Coefficient Alpha equaled .84 and .86 respectively. Knowledge section of instrument is 30 questions with 5 multiple choices answers. Skills part is description of crisis counseling process. The second was satisfaction with distance education model for social workers assessment. A questionnaire, 24 statements, was developed by the researcher. Data was collected by mail, and analyzed using statistical frequency, percentage, average, and standard deviation.

4. Results and Discussion

4.1 Needs assessment found that most samples were female (87.60%), the average age was 36.43 years, respondents had earned a bachelor degree (67.50%), and average prior duration as a social worker was 9.54 years. Fifty-five percent wanted to develop their knowledge and skills through distance education; books, internet, computer assistance program, and CD-ROM. The crisis Counseling course was ranked as the first priority.

4.2 Distance Education Model for Social Workers - was developed by the researcher - is composed of 6 systems: (1) registration system, learners registered through a weblog, namely <http://yukthais.blogspot.com>; (2) information system, facilitator sent course information to learners through telephone and e-Mail; (3) formal interaction system, learners answered 4 open-end questions on the weblog; (4) courseware system, learners learnt by themselves through book; namely Crisis Counseling for Professional Social Worker, and did Crisis Counseling for Professional Social Worker Exercises in CD-ROM; (5) assessment system, using online assessment through a website, namely <http://thdesw.org/e-learning>; (6) problem-solving and encouragement system, using telephone, e-Mail, and internet social networks. This model was designed for learning on demand. Learners could interact with their fellows students and an instructor through both synchronize and asynchronize interactions within the weblog and website.

4.3 Learning process composed of 4 stages. Firstly, learners registered for the course. Secondly, learners did a pretest. Thirdly, learners studied courseware. Finally, learners did a posttest. During this process, learners interacted with each other and with an instructor through the weblog.

4.4 Test of model validity found that all 8 experts confirmed the fitness of the model. Each sub-system was fully applicable.

4.5 Trial result found that fourteen social workers registered, but ten were successful in learning (71.43%). Learners who needed help were in the following categories: 35.71% in registration, 30% in doing pretest, and 55.55% in weblog interaction.

4.6 Test of model quality found that both knowledge and skills in posttest average scores were higher than pretest average scores; $\bar{x}=2.90:1.95$ and $\bar{x}=3.65:3.20$, respectively. This indicates learners were satisfied overall with the distance education model for social workers at a high level ($\bar{x}=4.40$). Moreover learners addressed that this model could not only save them time and money, but also efficiently develop social workers, which agreed with Forsyth's (2000) assessment that online professional development model is effective and learners have the same average score as learners in a classroom. They enjoyed online

discussion. So social workers professional development programs could deliver via online courses, and offered in a rolling program throughout the year on learners' demand.

This model could apply to learners' working at the highest level ($\bar{x}=4.50$), which agreed with Zhang and Hung (2007) was found that learners in distance training program was satisfied with their work progress, helping them improved their works, upgraded their language, and received a professional promotion. So distance education could apply to improve social work knowledge and skills, and enhanced the potential of social workers toward more professionalism. Social work education can take advantage of the increase and availability of technology resources in homes and universities that allow for distance education. Distance education environments have effectiveness of teaching social work, in particular clinical skills. This push for more theoretically based learning environments in social workers' professional development programs.

5. Conclusion

This study confirms that the distance education model for social workers can apply to professional development. These finding suggest that

5.1 The Government should have a policy to develop educational technology and media for professional development. Especially, the tools which draw learners' attention to developing a sense of community in the group of participants in order for the learning process to be successful. All social workers from every region should be able to access the system easily.

5.2 The Board of National Social Welfare Promotion should support the application of this model to develop social workers. The professional development program was developed in cooperation with academic institutes. Social workers can attend those as they relate to their interests.

5.3 Future research should apply this model to different characteristic courses, and different professions in social services.

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Star Wars and Lost Transmedia Storytelling: A Study for Distance Education



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Abstract

This paper aims to present a practical proposal of transmedia content in Virtual Learning Environments. For this, we study the transmedia storytelling - Lost and Star Wars - emphasizing their potential considering the large number of fans. To carry out the reflections on the theme, we use the theoretical contribution of authors such as Henry Jenkins (2009), Vicente Gosciola (2011), Pierre Lévy (1999), Lucia Santaella (2007) and others, and also reflect on the data of franchises Star Wars and Lost. Therefore, we can contextualize the goals of transmedia storytelling from the culture of convergence and its implications in the process of building collective and participatory as well as make qualitative and quantitative analysis of the two narratives selected, so that you can outline what features present in the transmedia storytelling can be applied in distance education methodologies, in order to make educational content more attractive, dynamic and engaging. From the qualitative and quantitative reflections brought by the research, we propose the use of the transmedia process in Distance Education. If the transmedia content from Star Wars and Lost has been gathering thousands of fans of all ages, the use of this transmedia process in Distance Education will bring positive results for methodological models. In this paper, we verify as conclusion that is possible to insert transmedia content in Distance Education because with that, more students will be interested in producing new stories by working collaboratively with others through multiple platforms.

Keywords: Transmedia storytelling; Distance education; Star Wars; Lost.

Introduction

The of this paper is the study and application of transmedia content in Virtual Learning Environments. For this, we propose to study the transmedia narratives - Lost and Star Wars - emphasizing their potential taking into account their large number of fans.

The article discusses about media convergence, transmedia narratives and point out the use and potential of transmedia storytelling in education. To carry out the reflections on the theme, we use the theoretical approach of authors such as Henry Jenkins (2009), Vicente Gosciola (2011), Pierre Lévy (1999), Lucia Santaella (2010) and others, and reflect on the data of Star Wars and Lost franchises.

With this, we aim to contextualize the transmedia narrative from convergence culture and its implications in the process of collective and participatory construction as well as make

qualitative and quantitative analysis of the two narratives selected, so that you can outline what features present in the methodologies of the transmedia narratives can be applied in Distance Education, in order to make the educational content more attractive, dynamic and engaging.

The transmedia storytelling (Jenkins, 2009) can be considered as the interaction between the fictional productions available on multiple platforms. It is a narrative complementing the other (linear or non-linear) used in the same fictional universe.

From the reflections of the narratives in question, we propose the use of transmedia process in distance education. If the content of the stories (Star Wars and Lost) through the process transmedia, won thousands of fans for entertainment purposes, the use of this process in distance education will bring positive results for methodological models.

1. Media convergence and Transmedia Storytelling

The convergence of media makes it go through a process in which it pervade through different interfaces and platforms (website, TV, blog, social networks, radio), in order to meet the viewer/consumer in many ways. It is increasingly common to find content originated on one media and end up permeating other, thus generating media convergence. These contents adapt to necessary changes to the media in which they are inserted, thus providing new experiences to viewers/consumers.

This process across different media platforms is related to the viewer who no longer accepts being just a “passive spectator”, and wants to be co-author of the content, through interaction with those in the media that best suits them. Henry Jenkins (2009) in his book *Convergence Culture* explicates convergence and analyzes the possibilities behind each production within the current media context, which is the key concept of interactivity, in contrast to the traditional media that had the public as a mere receiver.

By convergence, I mean the flow of content across multiple media platforms, the cooperation between multiple media markets and the migratory behavior of media audiences, ranging to almost anywhere in search of entertainment experiences they want. Convergence is a word that can define transformations technological, market, cultural and social, depending on who is talking and what they think they are talking about. (Jenkins, 2009, p. 29)

If convergence is the process of migration of content between various media platforms and its intention is to generate new experiences for the consumer, so the migrated content is something different, but bring the original features. Hence, the Transmedia Narrative, tells a story based on an original source with the use of new features without departing from the characteristics of the "source story" with the intention of holding the viewer in a fictional universe composed of multiple timelines.

Transmedia storytelling, also known as transmediation, or transmedia only, expresses an event, not an essence. It reflects multiplicities created from experience and not a single truth. Thus, the concept should be used as a tool for reflection, so you need to give importance to the facts, the uniqueness of events. We understand as a form of transmedia a narrative that builds in detail and change. Ideas and images get updated by the participation of individuals, through their involvement with fictional plots.

At a seminar in Congress Intercom in 2011, Vicente Gosciola (2011) characterized transmedia narratives like "format narrative structure; great story divided into fragments, the fragments are distributed across multiple media platforms and allows the story to be expanded; circulates through social networks, supports distribution strategy called "viral" or "spreadable"; adopts as production tool mobile devices such as phones and tablets. In other

words, transmedia storytelling is nothing more than a large fragmented story, in which these fragments differently complement, and even interfere with the meaning of all this story.

These stories that unfold in different media platforms intends to acquire a diverse audience, because as they are present in different medias, will be presented for different types of subjects, besides providing a possible interaction between stories and spectators, as emphasized by Gomez (2010), helping to the success of the narrative itself.

Thus, it is possible that the transmedia process is used in education for entertainment purposes. If it succeeds, it will bring positive results also for the educational field, through the inclusion of this process in the methodological processes.

2.The potential of franchise Star Wars and Lost

The Star Wars franchise began with one of six films in the series, written by George Lucas. The first film was released in 1977 and since then has become a worldwide phenomenon. This was followed by two more films, *The Empire Strikes Back* and *Return of the Jedi*, with an interval of three years. And sixteen years after the release of the last film, the author began a new trilogy. The films were also released with three-year interval, with the last film released in 2005. The six films in the series grossed around 4 and a half billion dollars, according to data from 2010, so they have become the third most profitable film series in the world, only behind *Harry Potter* and *James Bond*.

Besides the films, the franchise has several other cultural products as a feature length animated CGI (*Clone Wars*), a TV series (released in 2008), short animated films (based on the on line LEGO toys franchise), a wide range of games, comics and cartoons. It is through these products that the story is expanded, making this a transmedia narrative.

The narrative is also expanded through fanfics in one of the largest fanfiction websites, the FanFiction.net (<http://www.fanfiction.net/>). The Star Wars series totals about 30,133 fanfics, these are disclosed on this site for 239 fan communities (fadoms) that are registered there. Thus, we conclude that the series fans stimulate the development of transmedia storytelling, collaborating in its disclosure. This information is potential evidence that the Star Wars franchise has making this a great phenomenon in both commercial and public/fans.

Lost is the second most watched TV series in the world, created by Jeffrey Lieber, Damon Lindelof, and J. J. Abrams (also creator of other successful series). The series has 6 seasons, with a total of 121 episodes. *Lost* has a unique style that follows two types of stories: one is the struggle of 48 survivors of a disaster to survive and live together on the island, and the other is related to the life of the main characters before the disaster, shown through personal retrospective or flashbacks. For this truth to be discovered is not related to the end of the journey, but to the beginning of a great mystery.

Success both critically and in public, the series had about 15.5 million viewers per episode during their first year of show. The first episode, more than 18 million people were watching the series, thus ensuring several audiovisual industry awards, including the Emmy Award for Best Television Series in the drama category in 2005, Best American Series imported at the British Academy Television Awards, in 2005 and the Golden Globe Award for Best Drama Series in the category in 2006. The series was added to American culture, being a phenomenon that increasingly enchants onlookers and expands across various media, such as comic books, TV commercials, webcomics, humor magazines, games, fanfilms, fanfics and popular songs.

The fictional universe of the series was also explored through novels and alternate reality games, like the *Lost Experience*. This was an alternate reality game (ARG), developed by the writers and producers of the series itself for fans to participate in the plot, and yet

expand it. It was available until 2010. The Lost Experience was a game that was based on the internet and it was characterized by a parallel storyline that was not part of the actual plot of the television series. In this game there was no winner, but through it was possible to unravel some of the great mysteries of the island.

The game The Lost Experience worked as follows: the fan watched the chapter of the series (45 minutes long), and then went to the game where several tracks were implemented. These clues would lead to other tracks on different platforms, such as: from the Internet to a magazine, from the magazine to a book, and so on. Some clues were quite complex, which meant that the player had to interact with other players so that, together, they were in the "treasure hunt".

The Lost Experience is presented as a narrative multi fragmented that spans different media, composing a product read in layers and modes of perception variables according to the user experience. Both series as Lost and The Lost Experience as a byproduct of a transmedia franchise can be read through the implications of expanding the narrative as a way to put collaborative pervasive game where multiple receivers are encouraged to have behavior in the resolution of a plot consisting of complex lines and specialized tasks. (LESNOVSKI, 2011, p. 2)

According Lesnovski (2011), both the series and the game are expanded through collaboration among fans. Each fan has a particular expertise about the fictional universe of the series, and with that they "work" together in order to unravel the mysteries of Lost Island. This game started in the end of the second season, when an advertisement was published on behalf of the Hanson Foundation, announced the re-launch of its redesigned website. The video showed a phone number and invited viewers to connect and "discover the experience alone." This was the long awaited "rabbit hole" that gave the start to the Lost Experience.

3. The use of transmedia process in Education

The practice of transmedia design in schools is relatively new in Brazil. The potential of these new creations lies in the fact that the original narrative can be enlarged, extended, and can converge with other media, interfaces and platforms, giving its fans the character of coauthors. Since each fragment is independent (although there is a relationship between them in context) the final product is genuine and their language is based on multimodality and hypertextuality. The transmedia storytelling expands the integration of technology in the educational process and understanding of media convergence as a cultural transformation that goes beyond the integration of media.

As stated by Nalin Sharda (2009, p. 2) the capability of working with transmedia narratives in education is the possibility to articulate the educational content with activities that are already present in the daily lives of students, such as collaborative work, sharing information and interaction. Thus, it is possible to induce the use of these open resources can assist educators in developing methodological strategies better able to meet the demands of students, precisely adapt to their context, considering also the various stages of student learning, their particularities and interests.

You need to detach the concept of elitist, for which information circulates in a small group. Knowledge must be extended to the population as a condition for the adequacy of the company. Therefore, it becomes important to the insertion of transmedia storytelling in Distance Education, in the current context of convergence culture. This is because, although education mediated by technological resources is not the solution to the educational problems of the country, the "independent learning" or mediated assumes a great value in today's society, including being recommended to a large number of students and professionals.

Therefore, it is important to reflect on the quality and efficacy in relation to the learning of the subjects mainly because, Distance Education remains and increasingly new perspective to understand this new field of action.

Since stimulate the pedagogical content is appropriate and expanded so attractive is one of the biggest challenges of Distance Education in the current context, through the results of this study suggest that Virtual Learning Environments can incorporate transmedia process in their methodological models. Through this, students will be attracted to learning, as it is drawn through this process for entertainment purposes.

If the content of the Star Wars and Lost, through the process of transmedia, won thousands of fans of all ages, it is likely that the use of this process in education bring positive results for the methodological models. Thus, based on the relevance of the data presented here, we conclude that the inclusion and application of transmedia process in distance education is something possible. So the Virtual Learning Environment provides resources that can facilitate the inclusion of this new scenario in education.

Conclusion

Transmedia narratives are stories that unfold in various media platforms from an "original" story. These narratives serve to enhance the knowledge of the subject about a fictional universe. The use of transmedia narratives in education is something new in Brazil, but if used can yield benefits to the educational process, as it happens in communities of fans. If the teacher uses a transmedia approach in the process, students may be interested in working in collaboration with each other.

In addition to the collaborative work, transmedia narratives is attractive to the education of young people, the potential of the various narratives that exist and that are also present in the daily lives of students. As quoted here, the potential of two narratives: Star Wars and Lost. Therefore, we suggest information sharing and interaction of students, based on the intense emotional appeal of the original story and its mythology.

Encourage the teaching content is one of the biggest challenges of Distance Education in the current context. Therefore, the results of this study suggest that Virtual Learning Environments can incorporate such contributions by creating new tools that enable the construction of narratives by students about the educational content presented in the disciplines. The implementation should be done in a participatory and collaborative way, using the potential verified in transmedia narratives.

Thus, from the relevance of the data presented here, we conclude that the inclusion and application of transmedia process in the methodology of distance education is possible and something that can bring positive results. For if for entertainment purposes this process has great potential, this being used in education attract students for learning. Through the use of transmedia storytelling in education can be provided interactional activities that can be developed collectively between students, making use of resources already adopted in the form of distance learning.

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Distance Education through the Open University system in South-South Nigeria: The gap between what is and what should be

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Abstract

The emergence of National Open University of Nigeria (NOUN) as a Distance Learning platform was the actualization of government's commitment and determination to enhance access to tertiary education by a sizeable number of citizens who for reasons of age or occupation could not enrol into regular university programmes. For the purpose of quality assurance and accountability, an evaluation of the programmes run by NOUN was deemed necessary. Therefore, the purpose of this study was to use Stufflebeam's, Context, Input, Process and Product (CIPP) Evaluation Model, to evaluate Education programmes which were being run over a 5-year period, in four (4) study centres in south-south, Nigeria. The essence was to identify gaps in standard of course content, academic staff strength, distribution and use of ICT facility, using the minimum standards benchmark of National Universities Commission (NUC) of Nigeria as the evaluation criteria. Both primary and secondary sources of data were used mainly from interviews and inventory of facilities, student data records, personnel data records and NUC minimum standards. Both qualitative and quantitative data analysis in percentages revealed an increase in population from 960 to 7,567 for the period under review, with more males than females enrolling. Results revealed a non-compliance of NOUN programme with NUC benchmark in terms of course content. Non- use of the internet as a necessary ICT support component in lesson delivery as well as gross inadequacy in facilities and equipment were noted. Recommendations focus on upgrade of course content, facilities as well as teacher quality.

Key words: National Open University of Nigeria (NOUN), Distance Learning, tertiary education, programme evaluation, quality assurance

Introduction

This paper focuses on the following:

- background of the Study
- characteristics of open and distance education
- statement of the Problem
- theoretical background
- purpose of the study
- research Questions
- research method in terms of design, population and sample
- data collection

- results and discussion and then
- summary, conclusion and recommendations

Background to the Study

The emergence of the National Open University of Nigeria (NOUN) is one among government's commitment and determination to democratize education as a major tool for enhanced access to tertiary education. Though relatively new in Nigeria, the open university form of education could be traced to 1940 when it operated through correspondence colleges in Great Britain, and some Nigerians studied through this system for various examinations, including the General Certificate of Education, Ordinary and Advanced Levels (GCE' OL and AL). The main mode of instructional delivery then was the print media (Akubuilu & Udegbumam, 2007).

The first conscious attempt to establish an Open and distance education unit as part of a university in Nigeria was made in 1974 when the University of Lagos sought the assistance of international extension college in the UK to establish the Correspondence and Open Studies Unit (COSU). This was later known as Correspondence and Open Studies Institute (COSI) and later as Distance Learning Institute (DLI: (Akubuilu and Udegbumam 2007)).

The open and distance learning initiative, according to Faghamiye (2002), died in succession due to non implementation of government policy backing it. However, efforts towards the revitalization of open and distance education received a boost in the year 2000, when the then democratic government started a gradual and progressive development of both structures and capacity building of staff of relevant institutions. In 2001, the suspended Open University Act of 1983 was reactivated and it paved way for the resuscitation and rebirth of the National Open University of Nigeria in 2002. Some of these efforts, according to Aderinoye (2004), received the support of international agencies like UNESCO and the Commonwealth of Learning.

With the enabling act in place, the following objectives of the National Open University of Nigeria were enunciated, among others to:

- (i) enhance education for all and life-long learning.
- (ii) provide the educational resources via an intensive use of Information and Communication Technology.
- (iii) Provide flexible but qualitative education.

(NOUN student handbook, 2006).

NOUN is dedicated to preparing professionals in various disciplines through the distance learning mode. It offers courses leading to the award of certificates, diplomas, Degrees and stand-alone self-development courses through flexible delivery, allowing learners the convenience to choose time, place and what to study. To actualize NOUN mandate, study centres were opened in the six (6) geo-political zones of the country of which the South-South, which is the focus of this study, is one.

The zone chosen for this study is peculiar in some regards. The south-south zone of Nigeria is the third largest wetland in the world, after Mississippi and the Pantanal. The zone covers an area of about 70,000 square kilometres and is noted for its difficult terrain. The region which forms the greater portion of Niger Delta accounts for more than 90% of Nigeria's earning from oil and gas (NDDC, 2003). But despite its rich resources, it is under

threat from rapidly increasing poverty level. It has remained wholly underdeveloped and the World Bank puts the per capita income at below 280, despite its high population which is spread across 4,500 communities (Oyakegha, 2011). Thus university education through distance learning is very welcomed development for this underserved group. Jegede (2000) had earlier pointed out that the spread of study centres is a means of finding a lasting solution to the deprivation being experienced by thousands of Nigerians who are not only hungry but also thirsty for knowledge and certification in education.

Characteristics of Open and Distance Education

Koul (2005) opines that it is a system of education in which the teacher and the taught are separated within a flexible, multi-media delivery system, which is highly sensitive to social realities. Koul's view conforms with one aspect that characterizes the open and distance learning programmes of NOUN as put forward by Fabunmi (2004), who avers that there is a physical separation between the facilitator and the learner, with the instruction being delivered through a variety of communication media such as the print, electronic, computer and correspondence. However, NOUN has study centres in all the geopolitical zones which serve as campuses. It is at such centres that students meet for occasional face to face contacts with facilitators.

One other aspect of open and distance education, is the useable media of instruction, which include books, audio tape, CD-ROMs and websites. Instructional delivery in this system is highly flexible because it takes the convenience, time and interests of learners into consideration (Oyakegha, 2011). It is the instructional system in which the independent learning material is the primary learning mode and in which the roles of facilitators are split between course developers, who design and prepare learning materials; and tutors, who provide support for distant students, act as mediators between the institution and the students, and usually evaluate and grade students.

Statement of the Problem

Apart from the mandatory student evaluation, an integral part of any educational programme such as the open and distance learning programme of NOUN should be programme evaluation which will ensure that what is being transmitted is what is expected and is in line with the needs of the society or programme objectives. Considering the increase in population of intakes from 960 to 7,567 within 5years and the attendant huge investment by individuals, students, organizations, and Government on this sector of Education, coupled with the erratic periodic termination of programmes (Esu, Asim & Eni, 2007), an evaluation is mandatory. Such an evaluation will hopefully provide a feedback on whether the programme is achieving the anticipated results and if not to find out what the constraints are and how they can be tackled to ensure that appropriate results are achieved. This is what has informed the conduct of this formative evaluation of the National Open University in South-South Geo-Political Zone of Nigeria.

Theoretical background

Dike (2005),viewed programme evaluation as the application of formal inquiry techniques for data collection in order to conceptualize, refine and determine the effectiveness of a programme with a view to making a comparative value judgement in order to continue, modify or terminate the programme.

Anderson (1976) noted that in evaluating an educational programme, usually the researcher has to either adopt or adapt some of the existing models to suit his plans. On this

premise therefore, the NOUN programme was evaluated using the Context Input Process Product (CIPP) evaluation model propounded by Daniel Stufflebeam in 1965. This model is one of the best known of the decision facilitation evaluation schemes. Stufflebeam's approach to evaluation is rooted in its definition of evaluation as the process of delineating, obtaining, and providing useful information for judging decision alternatives. The context here is university education through distance learning, the input are the course contents, facilities/equipment, and facilitators, while the process deals with the use of ICT as a mode of lesson delivery. The product which would have been the student quality and turnout was not a focus of this study. Thus the investigators adapted the model by concentrating on the context, Input and the process aspects of NOUN programmes for analysis of what is and what should be.

The implication of applying the CIPP model to this study is that it will help to unveil unmet needs and enhance the identification of several decision settings of the open and distance learning programme of the National Open University of Nigeria. It will also facilitate in monitoring of the instructional process as stipulated for distance learning.

Against the background of actualizing government's commitment and determination to enhance access to tertiary education, this study, sought to evaluate the programmes with the essence of identifying gaps in standard of course content, academic staff strength, distribution and qualification, as well as the use of ICT facilities in actualizing NOUN programme objectives.

Purpose of the study

The purpose of this study is to evaluate what is and what should be in the open and distance learning, as implemented by the National Open University of Nigeria. Specifically, the study is intended to:

- i assess whether the standard of course contents conforms to NUC minimum standards for programme implementation.
- ii determine if academic staff (facilitators) strength and qualification is in consonance with NUC minimum standards benchmark.
- iii establish if the distribution and use of Information Communication Technology (ICT) facilities meet NUC minimum standard.

Research questions

To guide this study, the following research questions were investigated:

- i. To what extent does the standard of course contents conform to NUC minimum academic standards for implementation of the programmes?
- ii. Does available academic staff strength conform to the NUC minimum standard in terms of number and qualification?
- iii. How adequate are the distribution and use of information communication technology facilities for the implementation of the programme?

Method

Design

The survey design was adopted for this study within the context of an evaluation framework based on Daniel Stufflebeam's CIPP Evaluation model.

Population and sample

The target population for this study consisted of the seventy-nine (79) programs run in the four (4) study centres in south-south Nigeria, namely Port Harcourt, Calabar, Yenagoa and Benin. These programmes were constituted as follows: three (3) certificate, twenty-six (26) diploma, thirty-two (32) undergraduate and eighteen (18) graduate programmes. As at the time of this study, these programmes were domiciled within five (5) schools in each of the four (4) study centres in South-South Nigeria.

Purposive sampling technique was then adopted to select the sample used in this study which consisted of the thirty-two (32) undergraduate degree programmes. These were chosen and others excluded for the purpose of comparability with regular university undergraduate programmes accredited by NUC. The breakdown of the sample is presented in table 1.

Table 1 distribution of Sample according to school and programme in South-South Nigeria

School	No of undergraduate courses per school		Undergraduate degree programme offered
Arts and Social Science	7	1	Peace studies/conflict resolution
		2	Criminology and Security Studies
		3	French/International Studies
		4	English Language
		5	Christian Theology
		6	Islamic Studies
		7	Mass Communication
Business and Human	4	8	Hotel And Catering Resource Management
		9	Tourism
		10	Cooperative Management
		11	Entrepreneurial/Small Business Management
		12	Integrated Science
Education	12	13	Biology
		14	Physics
		15	Chemistry
		16	Mathematics
		17	Agricultural Science
		18	Information Technology for teachers
		19	Business Studies
		20	Early Childhood Education
		21	Primary Education
		22	French

School	No of undergraduate courses per school		Undergraduate degree programme offered
		23	English
Science and Technology	8	24	Environmental Studies/Resource Management
		25	Nursing
		26	Communication Technology
		27	Computer Science
		28	Agricultural Extension and Management
		29	Data management
		30	Mathematics
		31	Mathematics/Computer Science
Law	1	32	Law

Data Collection

Data for this study were collected from both primary and secondary sources. The primary source of data collection consisted of interview and inventory taking through observation (baseline indicators) and findings were reported in words rather than statistics as suggested by Worthen, Sanders, & Fitzpatrick (1997). The secondary sources included Personnel Data Record (PDR) which provided information on staff. Also, the National University Commission (NUC) minimum standards benchmark was used as the criterion for checking the standard of course content.

Results And Discussion

Research Question 1

To what extent does the standard and course content conform to NUC minimum standard in programme implementation?

To determine if the course content of NOUN in the 32 undergraduate programmes conformed to NUC benchmark, the number of compulsory courses and the total credit hours were considered. Only courses offered in both conventional (regular) and open university were used for purposes of comparison. The mean credit unit for all those compulsory programmes were computed on programme by programme basis. These mean values were used as criterion scores against which the mean values from NOUN programmes were matched for the purpose of determining conformity to NUC standard. Results of the analysis presented in table 2 shows that there is conformity of NOUN courses in terms of content. Using the NUC minimum standard benchmark, there is a specific amount of course content that must be covered within a given credit unit. The assumption in this study is that if two courses have the same credit unit they will cover the same amount of course content. Since the mean credit unit for core compulsory courses in conventional universities and the open university are the same as shown in table 2, one can safely conclude that there is conformity in course content of compulsory courses run by conventional and open university, but the issue of quality as can be determined by the standard of content delivery is inconclusive.

Table 2 Total number and mean value of credit units for compulsory courses

School/Faculty	Type of university	No of compulsory courses	total no of credit units(N)	\bar{x}	Conformity with NUC standard
Arts	Conventional university	5	10	2	Yes
	Open University	5	10	2	
Business and Human Resources Management	Conventional university	4	12	2	Yes
	Open University	4	12	2	
Education	Conventional university	6	12	2	Yes
	Open University	6	12	2	Yes
Science and Technology	Conventional university	6	18	3	Yes
	Open University	6	18	3	
Law	Conventional university	5	13	2.6	Yes
	Open University	5	13	2.6	

Research question 2

Does available academic staff strength conform to the NUC minimum standard in terms of number and qualification?

To answer this question, simple percentage was used to ascertain conformity and the result is presented in Table 3.

Table 3 Distribution of facilitators by number and qualification per study centre

Qualification	Number of facilitators	Percentage	Study centre			
			Port Harcourt	Calabar	Yenagoa	Benin
Master in public Administration (MPA)	23	5.9	6	2	7	7
Master of Arts (MA)	46	11.9	10	4	11	21
Master of Education	33	8.5	10	6	7	10

Qualification	Number of facilitators	Percentage	Study centre			
			Port Harcourt	Calabar	Yenagoa	Benin
(M.Ed)						
Master of Science (M.Sc)	98	25.4	30	18	20	30
Master of Business Administration (MBA)	47	12.2	16	8	7	9
Master of Laws (LLM)	23	5.9	6	5	3	9
Ph.D	116	30.1	41	31	21	22

However for the purpose of this study the investigators focused on qualification and not ranks because facilitators in the Open University are not permanent staff of the institution with their demographic data ranked into the categories recommended by NUC. The results in table 3 show that, there were a total of 116 (30.1%) Ph.D holders out of the total number of 385 facilitators in the study centres under scrutiny. Of this number, Port- Harcourt had 41, Calabar 31, Yenagoa 21 and Benin had a total of 22 Ph.D holders. The implication of this finding is that the academic staff strength falls short of NUC minimum standard for proper programme implementation. NUC recommends that at least 55% of university lecturers must be Ph.D holders. This stipulated percentage was used as the basis for conformity across all 5 schools in the 4 centers. NUC also recommends that 20% of lecturers in any programme should be of the professional grade, 25% in the senior lecturer's grade while lectures I, II and assistant lectureship grades should constitute 45%. The finding here may be a reflection of the situation in the conventional universities from where the facilitators of NOUN programmes are drawn. The findings agree with an earlier survey by Peters (2007).

Research question 3

How adequate are the distribution and use of information communication technology facilities for the implementation of the programme?

To answer this research question, an inventory of facilities/equipment for open and distance learning using some baseline indicators of ICT use in lesson delivery was carried out. The findings are presented in table 4.

Table 4 Baseline indicators for the use of internet communication technology and provision of support materials

S/N	Baseline indicators	Yes	No
1.	Course materials delivered on-line	-	√
2.	Course materials delivered through audiotape.	-	√
3.	Course materials delivered through C.D-ROM.	-	√
4.	Course materials through radio.	-	√
5.	Course materials through e-mail.	-	√
6.	Course materials through satellite broadcasts	-	√
7.	Course materials transmitted through television set	-	√
8.	Course materials delivered through prints.	√	
9.	Course materials delivered through video cassette.	-	√

Results in table 4 show that course materials are delivered only through prints. This implies that ICT is not in use for programme implementation in the NOUN centres under review as should be the case in open and distance learning.

Summary, Conclusion and Recommendations

This study focused on the context, input, and process components of National Open University of Nigeria (NOUN) thirty two (32) undergraduate programmes run through the distance learning mode. Three (3) research questions which formed the focus of this study centred on quality of course content, academic staff strength, and extent of use of ICT in lesson delivery.

In terms of the standard of course content, NOUN distance education programme in south-south Nigeria conformed to NUC minimum standard for undergraduate programme implementation. However, in terms of lecturers who delivered those courses, their available staff strength fell short of NUC guidelines. This aspect of NOUN programme delivery needs to be taken into consideration in staff selection to avoid undue bias to the detriment of programme success. Focusing heavily on the print media to the exclusion of ICT in this age of global competitiveness negates the very essence of distance education. However with the recent vast expansion of telecommunication networks in Nigeria, the investigators are sanguine that NOUN may be able to create and use its own special social network for the purpose of distance education. Hopefully, this study which has highlighted the observed gaps in NOUN distance education implementation, will be an empirical evidence for programme modification to arrive at what should be.

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Dilemmas in the Development of an Online Mentoring Program: The Mentors' Professional Learning Processes



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Abstract

This text examined the main tensions which had been evidenced in the construction and development of a "professional learning community of mentors" participating in a mentoring program using internet and turned to beginning teachers working in the first years of elementary school and can be used as a basis for better understanding of collective processes of learning, professional development of teaching and to offer programs of the same nature. We present the program main features that were conducted by experienced teachers (mentors) in conjunction with researchers from a public Brazilian university. Therefore, we have described briefly the research, its objectives and we analyzed the main tensions observed which can be considered in the promotion and evaluation of initiatives related to processes of professional development of experienced teachers to act as mentors.

Keywords: Online Mentoring Program; Professional Learning Community; Mentors; Professional Development of Teaching

This text examined the main tensions which had been evidenced in the construction and development of a "professional learning community of mentors" participating in a mentoring program using internet and turned to beginning teachers working in the first years of elementary school.

Objectives and Purposes

This study is part of a research project of a constructive-collaborative nature, whose purpose is to evaluate the contributions of an online mentoring program (OMP) to the professional development of novice and experience teachers. During the OMP, the latter, i.e., mentors, assisted the former to overcome professional difficulties.

Specifically, this article analyzes and discusses the core tensions evidenced in the construction and development of the program in question, which should be taken into consideration when promoting and assessing initiatives involving the professional development of experienced teachers to facilitate their work as mentors. To this end, bearing the mentors in mind, the purpose of this article is:

- a. To analyze the process of construction, implementation, and development of the OMP;
- b. To identify the tensions arising throughout the OMP implementation;
- c. To understand how the identified tensions influenced the OMP mentors' professional development.

Perspective(s) or Theoretical Framework

The theoretical framework underlying the OMP and research presupposes that mentors are educators and, as such, teachers. Their practice, therefore, occurs in conflicting, complex situations subjected to multiple, contradictory forces (Kennedy, 2006). Their practices are usually rooted in knowledge constructed along their personal and professional trajectories and act as 'lenses' or 'filters' (Richardson, 1996, 2003; Fairbanks et al, 2010) through which they conceive learning as well as guide their practices. The kind of teaching and learning required nowadays demands that these professionals learn from their own practices and professional contexts instead of just acquiring new strategies and activities (Ball & Cohen, 1999, p. 4). They should be creative and flexible so as to apply their professional knowledge in multiple ways to varied teaching situations. In the case of teacher educators and mentors, it is more difficult to define their knowledge base as its nature is double; it comprises the knowledge a needed to teach students of certain years/grades and the knowledge related to teacher education.

We also share the idea that a strong professional community is capable of promoting professional learning and fostering the improvement of instructional practices. In this case, teachers have the opportunity to work in groups (with shared goals), exchange ideas, negotiate responsibilities (Galluci, 2003), expound their knowledge bases as well as come into contact with connections between theory and practices (Weiss & Weiss, 1999). In this perspective, participants work together, contributing to each other's professional growth and mutual enrichment.

The investigation was based on results of previous research involving partnerships between researchers from the Federal University of São Carlos (UFSCar) and public school teachers of different educational levels. In recent years with the use of a constructive-collaborative

nature-based investigation and intervention methodology (Knowles and Cole, 1993) has been investigated and promoted the learning of teachers and improvement of the knowledge base for education (Mizukami et al., 2010) from activities of continuing training of teachers having as object the workplace, turned to professional development of teachers.

Methods, Techniques, or Modes of Inquiry & Data Sources, Evidence, Objects or Materials

For the construction and development of the OMP we opted for the constructive collaborative perspective of research and intervention (Cole & Knowles, 1993), which allows the apprehension, interpretation and description of the knowledge constructed by mentors as well as the decision processes adopted by them when teaching online novice teachers how to teach. This includes the systematic investigation of consequences of the work done to favor changes in social relationships in the community contexts (Aldenán, 1989).

In methodological terms, apprehending reflective practice somehow involves the search of information internal and external to the subjects, by proposing activities that elicit knowledge and beliefs. In our study it has been important that the mentors' conceptions be primarily understood by means of their oral and written narratives about their work with the novice teachers and especially through the development of teaching and learning experiences, the core of their work. Other sources of data have been necessary, such as autobiographical accounts and interviews (individual and with subgroups of mentors) as well written narratives and online interactions with the novice teachers (e-mails).

On the other hand, the relationships between the researchers and mentors by means of emails were systematized all the way through the development of the OMP. The conversations during the researchers' weekly meetings with the mentors were transcribed. The analysis of this material took into account that the discourse of the group of mentors and researchers influenced the development of the OMP phases. The challenge consisted in analyzing how these interactions promoted the participants' professional development, commitment to the program, and construction of new ideas (Carrol, 2005). Due to these options the study was also of a descriptive-analytical nature.

The OMP construction and development process happened as follows. From October 2003 to 2007, ten experienced teachers, selected on account of their competence as well as their social recognition by the community, have participated in an OPM, carried out by the researchers.

During the first phase of this program, lasting ten months, the experienced teachers defined what they deemed as necessary to play the role of mentor, the presuppositions, the "curriculum," the possible actions and the duration of the OMP. In this phase the researchers elaborated educational strategies to foster the mentors' professional development as regards mentoring activities.

The second phase, lasting six months, implied the mentors' undergoing training in Internet to become capable of using the computer and the web platform adopted by the OMP.

In the third phase, lasting two years, of the project—when the mentoring activities began—the researchers monitored the mentors' work closely through discussions and studies at weekly meetings and by means written accounts of activities carried out by them and the e-

mails between each mentor and their novice teacher partner. In addition the researchers met with the mentors on a weekly basis to discuss how the OMP was evolving, and to assist in their professional development.

Results and/or Substantiated Conclusions or Warrants for Arguments/ Points of View

The analysis of the process of interaction between the OMP mentors and researchers indicated that a teacher learning community was gradually forged during its development. The indicators proposed by Grossman, Wineburg, and Woolworth (2000) were identified: the construction of a group identity and interaction norms; the occurrence of tensions and conflicts and the search for solutions; and the understanding that the group's goals consisted in assisting the novice teachers as well the mentors in their difficulties and that all participants were responsible for both the novice teachers' and their own formation processes. This process was observed to be time-consuming and erratic since some of its phases recurred over time, as is the case with some of the evidenced tensions.

Throughout the process, the following tensions were evidenced:

- a) Being a good teacher versus being a good mentor

The selection of teachers to be mentors followed these criteria: presenting more than 15 years of teaching practice; experience diverse in terms of teaching practice; be recognized by peers as competent professional, i.e. a good teacher. Two mentors, however, had difficulties in building an identity of trainer as well as a specific knowledge base to that activity. They assumed in such cases, the role of emotional support in relation to beginning teachers who accompanied instead of an action based on the principles established by the program, i.e., the beginning teachers' reflections on the own practice, taking into account the characteristics of adult learning and contexts of professional practice. Their no-adhesion to a mentor identity outlined by the group were related to the presentation of negative or ambivalent attitudes regarding the proposed activities in the program and at least one of these mentors had a manifestation of a greater sense of responsibility and commitment to school in relation to fostered by the program. By adopting this standard did not respond adequately to the demands of beginner teachers, and when considering the objectives of program, their attitudes generated at first a feeling of solidarity and support, but later discontent in other mentors who felt powerless to change this situation and disagreed with this guidance. In the Investigated context these professionals they were gradually being noted as they had a lack of the repertoires suitable to the role of mentor, despite of being good teachers, and to fit standards and objectives established for the program. Over time, these mentors began to feel uncomfortable with this situation and requested disconnection of the program. As Shulman (apud Gaia, 2003, p.33) we realize that the knowledge of the majority of mentors (such as from teachers) on one hand was modeled by the context to which it is exposed (the virtual interaction with beginner teacher and face to face meetings with other mentors, and researchers) and the context in which it is used and practiced (the contexts of beginners teachers' performances and also for your own actions, including, in this way, the correspondence). On the other hand, when modeling a new knowledge, ancient knowledge are reformulated in a dialectical relationship thus enabling the creation of a multidisciplinary knowledge-base in two levels, one related to the teaching of beginning teachers and other related to the teaching of students (Achinstein and Athanases, 2005). We remember that in

the case of mentors linked to the Online Program of Mentoring, another category of knowledge still was presented as an articulated way: the exercise of teaching in distance. In the case of mentors who left the program we can say that the base related to the teaching of beginning teachers did not develop properly compromising the development of the trainer's identity.

b) Experienced teacher versus novice educator

The mentors were observed to face challenges of two types: the development of the OMP pedagogical proposal and the development of an investigator's repertoire. Overcoming these challenges implied the mentors establishing mechanisms to accommodate their previous identities and constructing a new knowledge corpus, which was partly based on their previous knowledge and experience as teachers. It was noted that the mentors' previous experience as schoolteachers was important to converting this knowledge into second-order practices (Murray & Male, 2005), since they primarily relied on their prior repertoire of teaching knowledge and experiences so as to teach other teachers. This knowledge helped the mentors who had no earlier experience as teacher educators. However, this caused some discomfort as the beginning mentors refrained from expressing their views to the group on some occasions.

c) Mastery of all contents versus mastery of given contents

Another critical aspect concerned the mastery of specific contents. The group of mentors displayed a diversified profile and in the beginning of the process it became evident that some of them were having difficulty in defining or expressing clearly the existing gaps in their knowledge base. Little by little the group came to understand that no teacher mastered every part of their peers' knowledge. A careful, joint examination into each mentor's knowledge base gradually enabled different members of the group to share their knowledge in a coordinated manner, as described by Hargreaves (1999).

d) Being in versus being away from the classroom

Four of the mentors were retired schoolteachers and somehow being away from the classroom posed some challenges to the group in that in spite of having ample repertoires of professional practices they had difficulty in understanding the needs presented by the novice teachers, especially those deriving from some public policies. Being in the classroom seems to promote a higher level of empathy vis-à-vis the formative demands presented by the mentees.

e) Diverging versus sharing beliefs

Throughout the OMP development process, this may have been the most critical aspect among the group members in that the mentors' thoughts often diverged from the novice teachers' as well as from each others'. Beliefs may work as lenses, enabling teachers to understand the teaching process and define teaching goals (Llinares, 2002; Richardson, 1996, 2003), but they can sometimes distort reality thereby hindering the understanding of facts. They can also become disruptive since it was observed that in some cases individual differences were not respected and divergent views were not sorted out.

Scientific or scholarly significance of the study or work

In the program under analysis, the construction of a teacher learning community was a complex process in which collaborative dialogue enabled the exploration of values, beliefs, assumptions, and knowledge in view of the professional development of those involved. Moreover, the tensions evidenced in this study worked as levers as well as obstacles to its achievement.

As teachers' knowledge is constructed in interaction with previous and present experiences, in contact with practice, this study suggests that the education activities carried out by the research group present the following characteristics: they are situated, involve social interaction processes and are distributed, since no mentor holds all the knowledge and skills needed for individual teaching.

It has been noticed that collective examination of ideas enables the distribution of knowledge so that a coordinated action upon someone's existing professional knowledge may promote the construction of new knowledge for others (Hargreaves, 1999).

This process most likely occurs with respect to explicit knowledge because it has been decoded by the group of mentors or because it can be effortlessly put into words. It seems clear the importance of a collaborative culture that accepts and invests in diversity of knowledge and conceptions, encourages expression of professional discourse and sharing of ideas by mapping out constructed professional knowledge and existing gaps, as happens in the research group in consideration.

Considering the results achieved, the weekly meetings between mentors and researchers and mails exchanged between mentors can therefore be considered as a powerful source of professional learning (besides the interaction with the beginning teachers, in the case of mail) demonstrated throughout the development of the program, although tensions highlighted had required ability from the researchers to lead with discussions and tact to outline them and minimize its effects.

We noticed that the development of dialog-based and practice-orientated educational programs for mentors provided opportunities for the abandonment of models experienced or received in other educational contexts and the collective construction of reflective practices leading to change.

It was evidenced that teaching and learning in the course of mentorship improved when mentors and researchers encouraged one another to question their beliefs and their routines, look into their teaching and learning conceptions, search for alternatives when dealing with demands, and actively pursue their professional development.

How professional learning communities can provide intellectual, social and material resources conducive to teacher learning and practice reconstruction may be understood when the facilitating and hindering variables involved are considered.

To understand how professional learning communities of mentors provide intellectual, social and material sources aimed at teacher learning and for a renewed practice is a challenge that can be overcome with understanding of variables involved, particularly the tensions resulting from social interactions among professionals focused on the same goal.

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Effectiveness Of An Enhanced “Problem – Centered” Approach In Teaching College Algebra



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Abstract

This quasi – experimental study, specifically, the pre - posttest design sought to determine the effectiveness of an enhanced “problem - centered” approach in teaching College Algebra among freshmen college students of St. Paul University Philippines, AY 2011 – 2012. It further sought to look into the pretest and posttest mean scores of the two groups of subjects (control and experimental) in College Algebra and if a significant difference exists. The subjects were identified through their academic performance and the ranking method was used to match the subjects in both groups.

To ensure the validity and reliability of data to be gathered, a Teacher Support Material, Pre – Test and Post Test as well as the subject’s midterm grade were utilized.

Further, the procedure involved three phases: Pre – Experimental Phase; Experimental Phase and the Post – Experimental Phase.

Frequency counts, mean, percentage, and the t – test for independent and paired samples were used as data analysis.

Results of the study revealed a significant difference in the pretest and posttest mean performance scores of the subjects in the experimental group. The findings of the study asserted that the exposure of the subjects to the enhanced problem – centered approach has improved their Mathematics performance. This then implies that through the enhanced problem – centered approach, learning Mathematics can be made more meaningful and effective. Effective learning take place when students are able to link previous learning with new ones, can adapt to engaging instruction, can access and organize information, can think “out – of - the - box”, and are able to articulate their ideas as they are exposed to new materials and activities.

The enhanced problem – centered approach enables students to be engaged in activities that involve the use of varied and meaningful problem solving strategies, thus making them creative problem solvers.

Hence, effective learners are creative problem solvers – learners who are able to harness creativity through organizational and planning skills.

Keywords: algebra; problem-centered approach

Background of the Study

Mathematics has always been a topic of high interest. As countries continuously progress, they also call for reforms that are demanded, and these include significant changes in the content of Mathematics courses, in the methods of instruction in Mathematics classrooms, and most importantly, in the expectations and opportunities for all students to learn different Mathematics than has been the standards for the past years.

Some critics from industry and government claim that the way to improve schools and prepare students for their jobs for the future is through better, clearer, tougher (but achievable) standards in the basic subjects. This seems particularly reasonable when it comes to subjects most nations worry about most – Mathematics and Science. Along with these tough content standards are high performance standards in other basic curricula which are intended to ensure that students will be employable and that industries will succeed.

As the world is continuously facing multiple developments through science and technology, it is expected that the role of each basic subject in the curriculum should be given emphasis. It is therefore necessary for all educational institutions to equip their students with quality Mathematics education which most nations find today a necessity for total progress and development.

Some educators, scientists and economists explain that in the years to come, when today's schoolchildren will enter the workforce, most jobs will require greater, not more limited Mathematics skills.(Romiso,2006)

It is for this reason that the teaching of Mathematics should be made more comprehensive. Educators should see to it that it is taught in a manner where results may not end upon completion of the course, but be applied in a broader, wider scope of life outside schools. They should always provide measures that will ensure that all students have a thorough and maximum learning in all their Mathematics subjects through varied, meaningful and interesting activities. Hence, as much as possible, educators should always create a place conducive for learning. They should always strive to work for innovations that will give meaningful and interesting school activities.

Developing understanding in Mathematics is an important but difficult goal. Being aware of student difficulties and the sources of the difficulties, and designing instruction to diminish them, are important steps in achieving this goal. Student difficulties in learning written symbols, concepts and procedures can be reduced by creating learning environments that help students build connections between their formal and informal mathematical knowledge; using appropriate representations depending on the given problem context; and helping them connect procedural and conceptual knowledge. (Yetkin, Elif, 2003)

Over the past three to four decades, a growing body of knowledge from the cognitive sciences has supported the notion that students develop their own understanding from their experiences with mathematics. The National Research Council(2009), among other groups, has drawn attention to research that suggests that "learning is a complex cognitive process that builds on prior knowledge and requires active engagement with new situations." "The process of inquiry, not merely giving instruction, is the very heart of what teachers do."

Blanco(2005) as cited by Tuliao (2009), stated that for Mathematics to be appreciated, one has to see beyond the ideas, concepts and skills presented in the confines of the classroom. Mathematics has to be real, relevant, tangible and enjoyable at the same time. Blanco's claim is particularly achievable if we present the different connections and applications of Mathematics to real - life scenarios.

Studies suggest, as cited by Ridlon(2004) that students benefit from using their own insights to make meaning of mathematics. They have to become empowered. They need to trust their own experiences and realize that there are many acceptable ways to do mathematics. They must develop confidence that they can understand Mathematics.

Constructivists have continued to expand their theory into a coherent framework that is useful about the teaching and learning of Mathematics. The implication of this viewpoint is that Mathematics instruction should be problem – centered. The constructivist model asserts that the teacher's role is to continually present students with problematic situations that are designed to meet defined classroom goals. By creating goal - appropriate tasks, the teacher creates the opportunities children need to construct an experiential body of knowledge in the most personal, significant manner. As George Polya (1971) aptly stated in early thoughts on problem centered instruction:

“A teacher of Mathematics has a great opportunity. If he fills his allotted time with drilling his students in routine operations he kills their interest, hampers their intellectual development, and misuses his opportunity. But if he challenges the curiosity of his students by setting them problems proportionate to their knowledge, and helps them to solve their problems with stimulating questions, he may give them a taste for, and some means of, independent thinking.”

In using the “problem-centered” approach to Mathematics, the class can work in pairs or in small groups where students are given a series of problems to solve given a specific amount of time. During this activity, the teacher goes around to check on silently students output but is not allowed to make comments. The students are asked present their solutions and explain how they derived their answers. If a group disagrees, they are asked to present their solutions and the class decides which one is correct, easier and is better to use. Hence, students are given the opportunity to construct their own strategies for solving problems and their own understanding of the mathematical concepts involved, and they are more likely to retain those concepts longer than if these were lectured to them. It is also through this approach that they learn valuable oral presentation skills. This is a model that makes the learners as critical thinkers.

In the Philippine educational system, achievement rate in the secondary level in Science remained low, and Mathematics was lower in the past two years. Similar to the NAT results for elementary, the Achievement Rates (Mean Percentage Score) in secondary subjects taught in English were generally lower than those taught in Filipino, i.e., Filipino and *AralingPanlipunan* (Social Studies). Compared to other Asian countries, as cited by King & Guerra (2005), the Philippines is really lagging behind in Mathematics and Science. This is further supported by the results of the study of Martin (2004)and report from the Trends in International Mathematics and Science Study (TIMSS, 2004), which was conducted among eighth grades. Results revealed that the Philippines ranked 36th among 38countries in 1999 and 43rd among 46 countries in 2003. Further, the National Education Testing and Research Center (NETRC) shows the achievement rates in Mathematics from AY 2005 – 2006 to AY 2009-2010 as follows: 47.82%, 39.05%, 42.85%, 38.03% and 39.64%, all of which are below 50%.(DepEd Fact Sheet, 2011)

In St. Paul University Philippines, it has been a common observation that freshmen college students have not fully mastered the competencies of the secondary mathematics program. This is evidenced by the poor performance they get from the Mathematics Proficiency Test which is administered upon entry in the university. It shows that only about 10-20% are making it every year – the results of which are alarming. This further supports the claim of educational surveys where most of our high school graduates do not manifest the 75%

mastery level as prescribed by the Department of Education. One of the reasons behind this is their inability to meaningfully comprehend the lessons presented. This therefore results to low performance in college Mathematics.

In an effort to increase performance in Mathematics, the Bridge Program, which aims to enhance mastery of the basic mathematical concepts and computational skills was conceptualized. This aims to help college students who did not thoroughly master the prerequisite skills and competencies for college mathematics and for them to communicate effectively the content and application of basic mathematical concepts and skills in terms of real life situations. This is a tool in drawing students' attention thereby increasing their motivation and interest to meaningfully learn the subject. Some strategies employed in the program are peer teaching and group work.

Interviews from both teachers and students point out to some reasons of low achievement in Mathematics. These include an overcrowded curriculum, attitude of both teachers and students towards the subject, insufficient instructional materials and inappropriate teaching strategy. This is supported by Javier, et. al.(2007) when they pointed out that teachers are one of the reasons for the prevailing low performance of schools all over the country.

Based on the premises presented, the researcher, being directly involved in the teaching – learning process and believing that much can be done in producing globally competitive learners, after having noted that Mathematics can be meaningfully learned when properly delivered, has found out that the conduct of such study is necessary.

Theoretical/Conceptual Framework

A constructive, active view of the learning process must be reflected in the way much of Mathematics is taught. Thus, instruction should vary and include opportunities for: appropriate project work, both group and individual assignments, discussion between teacher and students and among students, practice on mathematical methods and exposition by the teacher.

Various concepts and theories were reviewed which guided the researcher in coming up with an instructional model on a modified “problem-centered” approach in teaching College Algebra. Hence, the theoretical framework rests on the following:

Dynamic Learning Program. The Dynamic Learning Program (DLP) is a program centered on activity based multi-domain learning that requires students to work independently, to discover and understand the lesson on their own by reading the concept notes and by doing the exercises before the lesson is discussed and explained. After about forty-minute exercises, the teacher starts discussing the lesson. It is only during this time that the students are encouraged to ask questions to help them further understand the lesson. The idea is that, students learn more by doing rather than by merely listening.

Through these daily activities, students' potentials in writing, spelling, comprehension, and reading are enhanced and developed. Slow learners are motivated to get high scores because intensive drills are given immediately after a thorough discussion. Students are trained to read and to think critically, characteristics, which nowadays students lack.

CMP Instructional Model. The Connected Mathematics Instructional Model is a problem-centered teaching which opens the Mathematics classroom to exploring, conjecturing, reasoning, and communicating. This model is very different from the "transmission" model in which teachers tell students facts and demonstrate procedures and then students memorize the

facts and practice the procedures. The CMP model looks at instruction in three phases: launching, exploring, and summarizing.

Experiential Learning of Mathematics. Experiential education is based on the idea that active involvement enhances students' learning.

Constructivism. Constructivist learning is based on students' active participation in problem-solving and critical thinking regarding a learning activity which they find relevant and engaging. They are "constructing" their own knowledge by testing ideas and approaches based on their prior knowledge and experience, applying these to a new situation, and integrating the new knowledge gained with pre-existing intellectual constructs.

PBL and Problem Solving. Since PBL starts with a problem to be solved, students working in a PBL environment must become skilled in problem solving, creative thinking, and critical thinking. Unfortunately, young children's problem-solving abilities seem to have been seriously underestimated.

Problem – Centered Approach. Problem-centered learning is a type of classroom organization which supports the constructivist approach to teaching and learning. It starts with an identification of a problem suitable for the students. These problems should be connected with the context of the students' world so that it presents authentic opportunities. The subject matter is organized around the problem and this gives every student the responsibility for defining their own learning experience in planning how to solve the problem. Collaboration is encouraged since it creates learning teams either in pairs, small groups or as a class.

To arrive therefore at reasonable recommendations, the paradigm on Figure 1 was used.

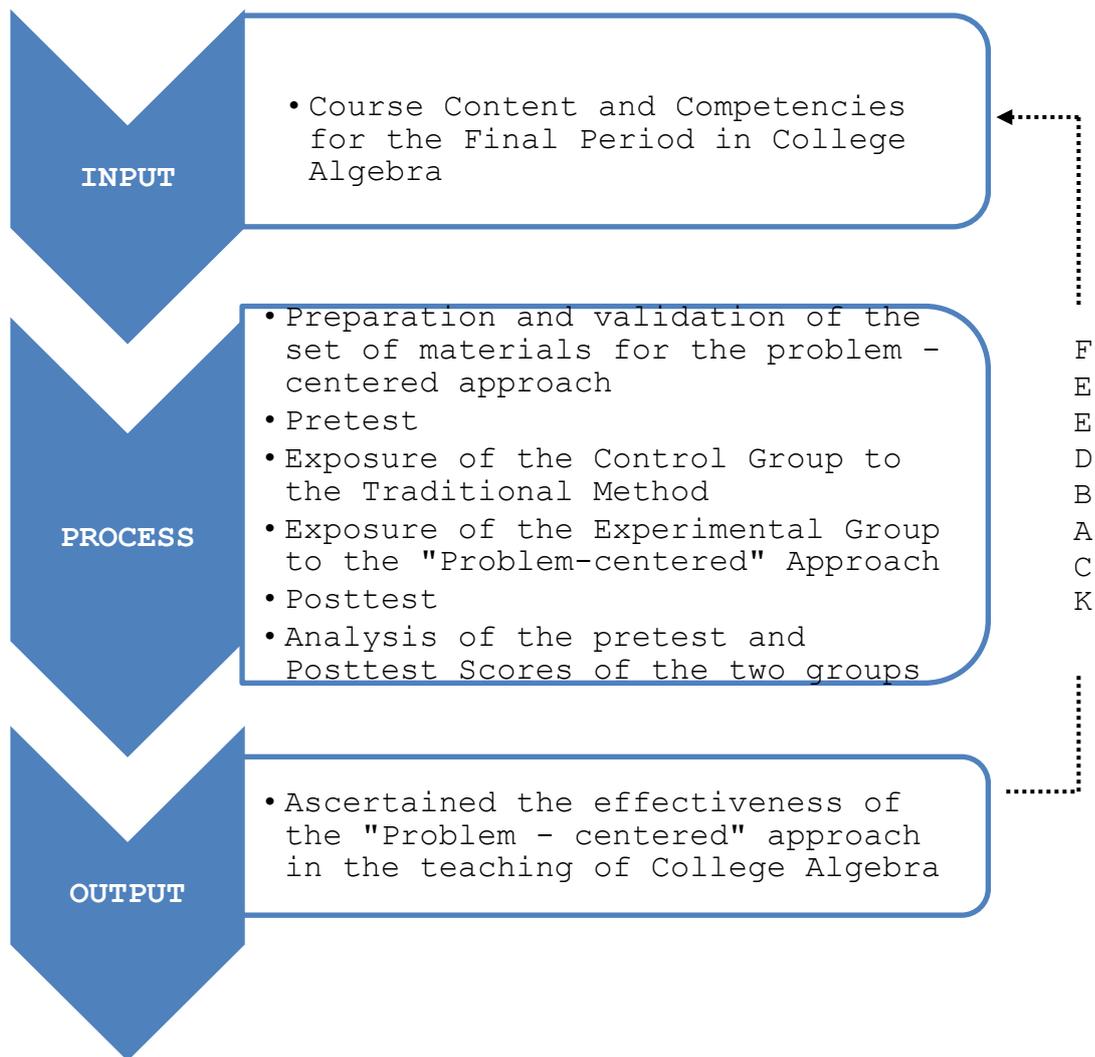


Fig. 1. Paradigm of the Study

Figure 1 shows the interplay of the concepts under study. The input includes the course content and competencies for the Final Period in College Algebra. These were considered in the preparation of the set of materials for the problem – centered approach together with the Pre-Post test. A pretest/posttest was taken from a Test Bank in College Algebra which was selected based on a table of specifications. The pretest was administered to assess the entry level skills of the two groups of subjects in College Algebra. The control group was taught using the traditional method of teaching while the experimental group was exposed through the “problem – centered” approach. After the topics have been covered, the post – test was administered. The output is to ascertain the effectiveness of the enhanced problem – centered approach in teaching College Algebra.

Objectives of the Study

This study sought to investigate the effectiveness of the “problem centered” approach in teaching College Algebra among freshmen college students of St. Paul University Philippines.

Specifically, it sought to:

1. determine the pretest and posttest mean scores of the two groups of subjects in College Algebra
2. determine if a significant difference exists in the pretest mean scores of the control and experimental groups
3. determine if a significant difference exists in the posttest mean scores of the control and experimental groups
4. determine if a significant difference exists in the pretest and posttest mean scores of the subjects in the experimental groups

Methodology

The quasi – experimental method, specifically, the pre – posttest design involved two groups - control and experimental. A pre – test was administered to both groups to ensure equality of their entry requirements for the experimental phase. The traditional approach to teaching or lecture method was used for the control group while the experimental group was exposed to the use of the “problem – centered” approach.

The subjects of the study were two classes of SHS freshmen college students, heterogeneously enrolled in College Algebra for the first semester of the academic year 2011 – 2012. They were identified through their Midterm academic performance where random sampling and the ranking method was used to match the subjects in both groups.

To ensure the reliability of data to be gathered, the following instruments were used:

1. Teacher Support Material
2. Pre – Test and Post Test
3. Midterm Grade

In order for the researcher to gather the necessary data for the study, the following procedures were employed:

1. Pre – Experimental Phase
2. Experimental Phase
3. Post – Experimental Phase

The data that were obtained were classified, analyzed and interpreted using the following statistical tools:

1. Frequency Count, Mean and Percentage. This was used to determine the pre – test and the post test scores of the subjects.
2. To interpret the raw scores of the subjects in both groups on the pre/posttest, the following arbitrary scale was used:

SCORE	DESCRIPTIVE INTERPRETATION
41-50	Excellent (E)
31-40	Very Satisfactory (VS)
21-30	Satisfactory (S)
11-20	Poor (P)
0-10	Very Poor (VP)

3. t – test for independent and paired samples. This was used to determine the significant difference in the
 - 3.1 Pretest mean performance scores of the subjects in the control and experimental groups

- 3.2 Pretest and posttest mean performance scores of the subjects in the experimental groups
- 3.3 Posttest mean performance scores of the subjects in the control and experimental groups

Summary of Findings

Based on the results of the study, the following findings were established.

- 1. *Mean performance scores in the pretest and posttest of the control and experimental groups.*

Scores	Control Group (n = 35)				Experimental Group (n = 35)			
	Pretest		Posttest		Pretest		Posttest	
	F	P	F	P	F	P	F	P
41-50 (E)			3	8.57			19	54.29
31-40 (VS)			25	71.43			16	45.71
21-30 (S)	22	62.86	7	20.00	21	60.00		
11-20 (P)	13	37.14			14	40.00		
0-10 (VP)								
Mean (Int.)	20.69 (S)		33.71 (VS)		20.60 (S)		41.14 (E)	

The mean performance score in the Pretest of the control group is 20.69 and 20.60 for the experimental group.

The mean performance scores in the Posttest is 33.71 and 41.14 for the control and experimental groups respectively.

- 2. *t – test on the significant difference in the Pretest/Posttest mean performance scores of the control and experimental groups*

Test	Group	Mean	SD	df	CV	p-value	Int.
Pretest	Control (n = 35)	20.69	2.98	68	-0.11	0.912	Not Sig.
	Experimental (n = 35)	20.60	3.45				
Posttest	Control (n = 35)	33.71	3.27	68	8.83	0.000	*Sig.
	Experimental (n = 35)	41.14	3.75				

There is no significant difference in the pretest mean performance scores of the control and the experimental groups.

There is a significant difference in the posttest mean performance scores of the control and the experimental groups.

3. *t – test on the significant difference in the Pretest and Posttest mean performance scores of the subjects in the experimental group*

Variables	Mean	Mean Difference	Df	t-value	Prob. Value	Int.
Pretest	20.60	-20.54	34	-34.068	0.000	*Sig.
Posttest	41.14					

There is a significant difference in the pretest and posttest mean performance scores of the subjects in the experimental group.

Conclusions

Based on the findings that were established, the following conclusions were drawn:

The exposure of the subjects to the enhanced problem – centered approach has improved their Mathematics performance. This then implies that through the enhanced problem – centered approach, learning Mathematics can be made more meaningful and effective. Effective learning take place when students are able to link previous learning with new ones, can adapt to engaging instruction, can access and organize information, can think “out – of - the - box”, and are able to articulate their ideas as they are exposed to new materials and activities.

The enhanced problem – centered approach enables students to be engaged in activities that involve the use of varied and meaningful problem solving strategies, thus making them creative problem solvers.

Hence, effective learners are creative problem solvers – learners who are able to harness creativity through organizational and planning skills.

Recommendations

In the light of the findings and conclusions, the following recommendations were made:

1. Mathematics teachers should continue to engage their students in problem solving activities using varied problem solving strategies to enhance students’ critical thinking skills and creative abilities.
2. Mathematics teachers should continue to explore and sustain the use of the enhanced problem – centered approach and other varied and more meaningful teaching - learning strategies in the form of games, practical work, outdoor activities, collaborative learning, investigations, problem solving and other activity – based learner – oriented approaches in order to allow students to construct their own knowledge based from previous knowledge; thus increasing students’ motivation and resulting to more fun, meaningful and enjoyable learning experience and more improved academic performance.
3. The administration should continuously support the use of the enhanced problem – centered approach in the teaching – learning of Mathematics attuned to the goals of the 21st century Mathematics education.

4. Parallel studies maybe conducted to include alternative assessment strategies vis – a – vis the teaching – learning strategies which are problem – centered and learner – focused.

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A Guideline for Developing Learning Society for Thailand



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Abstract

It is accepted among many countries that developing learning society is one of the strategies to provide lifelong learning to people. The objectives of this research were to: 1) synthesize the process of developing learning society for Thailand, and 2) develop a guideline manual for identifying and selecting the learning society.

The study composed of 2 main phases: the documentary research and the field study. For the field study, 9 learning communities which were accepted as learning societies were purposively selected from 9 provinces across the country. From each community, 5 members of community committee, 3 representative of villagers and 2 representative of related agencies were purposively selected. Moreover, 10 villagers were randomly selected to indicate the results obtained from the learning community. The total samples was 180 people. Research instruments composed of the community survey form and the structured interview formats. The data was analysed by content analysis.

The main findings were: 1) The process of developing learning society for Thailand included 13 steps: selecting a community; identifying the beginner; setting up a core group; expanding the interests; searching stake-holders; personnel development; analyzing the community situation; developing the community plan; analysing capability of stake-holders; organizing activities; following-up and evaluation; publicizing the results; and network creation. 2) The guideline manual for identifying and selecting a learning community composed of criteria in 3 main aspects: the beginning aspect; the operating aspect and the output aspect.

The result of this study can apply for creating learning society throughout the country, which will then enable all Thai people receive lifelong learning.

Introduction

It is accepted worldwide that education is a tool for developing quality of life of people. Education is needed for every period of one life. Only formal education that people obtain during their school age period is not enough for them to cope with the change of social and environment in everyday life. Therefore education should be a lifelong process or lifelong education.

To enhance people to obtain lifelong learning opportunities, it is impossible to rely only on formal education. This because people can not attend class-rooms for the whole lives. Therefore, other forms of education should be provided to suit with the nature of each group such as the working age, young adult or elderly people. Education for these people should be the forms which are integrated into their works and their everyday life.

One of the strategies that many countries employ for promoting lifelong learning for their people is developing their societies to become learning societies. Smith (2000) stated that the concept of learning society is accepted worldwide. It focuses on human resource development through lifelong learning. Moreover, Candy (2005) concluded that the concept of learning city or learning society has been implemented in more than 300 cities in the world. It relies on lifelong learning principle and aims at developing quality of life and living situation of people.

According to the definitions and concept provide by educators in the field such as Edward (1997), Trilling (2005), Choi (2002),and Longworth (2006), it can be concluded that in learning society/ community, learning is employed as a main instrument for developing the individuals and the community as a whole. Various kinds of learning activities are made available within the community for every people to access them easily and conveniently.

At present, many countries in Europe, Asia and other regions have promoted and implemented this idea to their societies. Thailand also recognized the significance of learning cities/ communities. As it is found that the Office of Non-formal and Informal Education Promotion has adopted and tried-out this concept in some areas. In order to have a proper framework for developing learning society/ community which appropriate to the context and can be applied to every part of the country, the researcher, with the support of the National Education Council has conducted this study with the following objectives.

Objectives of the study

- 1) to synthesize and propose the process of developing learning society/ community for Thailand
- 2) to develop a guideline manual for identifying and selecting the learning community.

Method of the study

The study composed of 2 main phases, the documentary study and the field research.

Phase.1: The documentary research. The researcher studied concept, principle and guidelines of developing learning societies from related literature. Moreover, cases studies of learning societies in some countries were also studied.

Phase.2:The filed research. The details of the field research were as follows:-

Population and samples. At the time of carrying out this study, the Office of Non-formal and Informal Education Promotion has started to promote and try-out the concept of learning society in 22 provinces of 4 regions as a pilot project. In drawing the sample of the study, the researcher purposively selected 2 provinces from each region. One of them was in the pilot project while another was not but it was developing in the line of learning society. Except the central region, 3 provinces (2 in the pilot project) were selected. Therefore the total sample provinces was 9. From each province, 1 community which was developing to be a learning community or learning society was purposively selected which made the total of 9 communities. Then from each community, people who involved in operating learning community were purposively selected. They were 5 members of community committee, 3

representative of the villages and 2 representative of involved agencies. Moreover, 10 villages from each community were randomly selected to indicate the results obtained from the learning community. The total samples from each community was 20 and from the 9 communities was 180 people.

The data were collected through the community survey form and the 4 structured interview forms for the 4 groups of the samples. Since the data obtained were the qualitative type, so they were analyzed by content analysis. After that the data from the field study was synthesized together with the data from the documentary study and the data from the cases study in order to propose the process of developing a learning community/ society and to develop a guideline manual for identifying a learning community. Then all the results of the study were verified by 15 experts in the field through a seminar.

The main findings

The main findings of the study were:-

1. The process of developing or creating a learning society/ community for Thailand included 13 steps. However, these steps can be flexible and adjusted to suit with the context of each society or each community.

Step 1 selecting a community. The community that will be developed to be a learning community can be a big or a small community. In Thailand, most of them started at the village level. Any village which was ready, can develop itself to become a learning community.

Step 2 Identifying the beginner or the key person(s). The key person should be the one who was respected and trusted by people in the community. In Thailand, the key person may be the abbot or the head of the village or the local wisdom or the elderly people. The beginner will be provided with the details of learning society. Then he/ she will extend this concept to the others.

Step 3 Setting up the core group. The core group usually composed of the representative of each group of people in the community. For example a representative of village committee, elderly people, women group, young people, occupational groups, and related agencies in the community.

Step 4 Extending the concept to the public. The core group promoted knowledge and understanding about learning society to people in the community through various channels. This aimed at making people understand and accept this idea so that they can participate in developing their community to become a learning community.

Step 5 Searching for steak-holders. The core group searched for those who can join in developing a learning community. In Thailand, steak-holders included representative of village committee, local organizations, private agencies, religious sector, local schools, and the local wisdom. The steak-holders should participate in developing a learning community in every step such as planning, allocating resources, operating, evaluating and improving the activities.

Step 6 Staff development. At this step, people who act as the administrators and the activity providers of the learning community should be trained to have knowledge, understanding and experiences in learning society.

Step 7 Situation analysis and needs identification. At this step, the committee which included the core group and the steak-holders analysed the situation, problems and identified

needs of people in the community by comparing them with the changes of social and environment outside.

Step 8 Developing a community plan. The information from the situation analysis and need assessment were employed to develop a community plan. The plan may include both a short-term and a long-term plan.

Step 9 Sharing responsibility among stake-holders. According to the community plan, each stake-holder analyzed its own capacity in order to see which kind of supports they can provide. Each stake-holder brought-out its strong point to share and contribute for developing the learning community.

Step 10 Organizing learning activities. Since learning is the main tool for developing learning community, therefore learning activities provided needed to be continue as a lifelong process, flexible, accessible and have variety to serve people's needs. Learning climate, learning culture and community participation were also encouraged.

Types of learning activities provided may include:

1) Basic education which covered literacy programs and basic education which is equivalent to primary education and secondary education.

2) Vocational training programs which covered short and long period vocational training in various fields such as silk weaving, Thai traditional sweet, mushroom growing, Thai traditional massage, herbal medicine, etc.

3) Knowledge for quality of life development such as health and hygiene, nutrition, sports, languages, law for daily life, religious, environment, etc.

4) Establishing different kind of learning resource centres such as local library, village reading centre, village museum, community learning centres, etc. Moreover, some knowledge and information were also provided through various kinds of media.

Step 11 Following up and evaluation. The organizers followed-up and evaluated the activities to see the advantages and the problems in order to improve them. Moreover, lessons learned from other learning communities can be used for improving the activities.

Step 12 Publicizing the results at every period. The results or the outputs of the learning community should be publicized at every period. This will make people understand and accept the significance of the learning community. The participation rate will then be increased.

Step 13 Creating network. Creating network with other learning communities can enable learning exchange, sharing and supporting among them. Moreover, the chance of creating new learning communities across the country is increased.

2. The guideline manual for identifying and selecting a learning community. The guideline manual for identifying and selecting a learning community composed of criteria in 3 main aspects: the beginning aspect, the operating aspect, and the output aspect.

For the beginning aspect (10 marks), there were 5 criteria: (1) selecting the community to develop to the learning community; (2) having the beginner; (3) setting up a core group; (4) providing knowledge and understanding among members of the core group; (5) extending wider interests.

For the operating aspect (10 marks), there were 7 criteria: (1) analyzing community situation and problems in order to develop a community plan; (2) identifying the target

groups; (3) drawing out community capacity for developing the community; (4) having stakeholders cooperation; (7) publicizing and making use of the results.

For the output aspect (10 marks), there were 6 criterias: (1) having variety and continuously learning activities; (2) participation of people in the community; (3) transferring and exchange knowledge obtained among people in the community; (4) knowledge accumulation and extension of learning resources; (5) application of knowledge obtained for individuals and community development; and (6) creating network.

Discussion

The main findings which can be brought to the discussion were:-

1. The process of developing a learning society or learning community for Thailand. The result of the study showed that the process of developing a learning community composed of 13 steps. They were: (1) Selecting a community, (2) Identifying the beginner, (3) Setting up the core group, (4) Extending the concept of learning society/ community to the public, (5) Searching for stakeholders, (6) Staff development, (7) situation analysis and needs identification, (8) Developing a community plan, (9) Analyzing capacity of stakeholders, (10) Organizing activities, (11) Following up and evaluation, (12) Publicizing the results at every period, (13) Creating network. These step can be flexible and adjusted to suit with the context of each society. Considering the process of developing learning community proposed, it relates to the guideline given by a number of educators and the practice of learning society in many countries. For examples the process of constructing learning towns/ cities in the United Kingdom (Learning city network, 1998) composed of the following steps: (1) letting key individuals in the cities act as the beginner because they can make people trust the idea of learning cities; (2) letting key institutions in the city act as the beginner because they can support some resources, especially at the beginning step; (3) setting up a core group; (4) wider interests or extending the idea to people in the city; (5) launching the events or activities; (6) promoting participation of the employers. Apart from these steps, there were 3 factors which make the learning city success. They were: cooperation among the organizers in the form of stakeholders, participation of people in the city, and ability in organizing learning activities. Cisco (2010) also proposed a similar process of developing a learning society which composed of 8 aspects: - (1) developing lifelong learning culture, (2) creating learning motivation among people, (3) bringing learning activities to reach the target groups, (4) providing equal learning opportunity, (5) realizing the diversity of the target groups and providing activities to serve them, (6) developing capacity of the education providers, (7) creating good co-operation with the networks, (8) developing infra structure, and (9) providing activities continuously and having following-up programs.

2. The study proposed the guideline manual for identifying and selecting a learning community which composed of criteria in 3 aspects: the beginning aspect, the operating aspect and the output aspect. The researcher developed this guideline from the data obtained from both of the related literature and the field study. From related literature, the researcher drawn the concept and principles of developing learning cities/ towns/ communities given by a number of educators. For examples Faris (1998) emphasized on : co-operation of stakeholders, participation of network, efficiency operation, and following-up and evaluation of learning activities provided. Choi (2003) emphasized on setting up clear work-plan, properly assigning responsibility to the stakeholders, designing proper projects/ activities, continuously operation, and conducting evaluation. Moreover, from the field research, the researcher studied the real practices of learning communities both within and outside the country. It can be concluded that there were 3 main steps in developing a learning town/ city or community. They were : the beginning step, the operating step and the out coming step. In

each main step, there were a few sub-steps or a few criteria. The researcher synthesized all of these findings to propose the guideline manual for identifying and selecting a learning community. After that the researcher re-checked these criteria again with a few existing learning communities. Moreover, the proposed guideline manual was verified by the 15 experts in the field. With the systematic process of developing, re-checking and verifying the guideline manual as mentioned above, it is confident that it can be applied for identifying and selecting the learning community in Thailand.

Recommendations

To be successful in developing learning communities in Thailand, some main recommendations were proposed:

- 1) A policy on “developing learning society for Thailand” should be promulgated.
- 2) Ministry of Education should coordinate with all related organizations in order to bring the policy into action in every province.
- 3) Knowledge and information about learning society should be disseminated to both the education providers and the general public (learners).
- 4) Participation of people in each community with the support of the responsible agency to develop their own community to become a learning community should be encouraged.

Conclusion

Developing learning communities is one of the strategies to enable people obtain lifelong learning opportunity. This because in a learning community, a number of learning activities are provided for people to choose. People can access to any activity easily and conveniently without having to travel far away. The process of developing learning community proposed by this study was designed to fit with the context of the country. The author believes that with the appropriate administer and application, every local community in Thailand could be developed to be a learning community. Then the country’s goal” lifelong learning for all” will come true.

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Determinants of Research Productivity of Faculty in Distance Higher Education



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Abstract

The primary objective of this study was to determine factors that influence research productivity of faculty in distance higher education. Specifically, the planned behavior theory (Ajzen, 1991) was applied to develop a research productivity model that comprising attitudes, social norms, perceived behavior control, and intention to do research and these factors are determinants of research productivity. There were 91 faculty members drawn from two distance universities in Thailand and Korea and they were asked to complete a survey that measures their numbers of research and publications as well as attitude, social norms, perceived behavior control, and intention to do research. The model was tested using a structural equation model.

It was found that the hypothetical model fitted the empirical data very well. Faculty's intention to do research was a major factor that influences the research productivity. In addition, attitude to research and perceived behavior control were two factors having indirect effects on research productivity through intention. This finding is consistent with the planned behavior theory (Ajzen, 1991).

Keywords: Research productivity, Higher Distance Education

1. Introduction

Research productivity is one of major outcomes of higher education organizations. It is an indicator that explicates the degree of quality of university and faculty. Nowadays universities worldwide have been monitored in terms of university quality by both internal and external agencies and one aspect of the evaluation is research performance of university. For example, the TIMES magazine has collected information of universities worldwide and have reported annual university ranking which has an impact on students and families when they are making decisions regarding where they should go to access better quality education. The TIMES ranking methodology relies on several aspects and research productivity is one of its consideration. Not only research productivity indicates quality of university, it also has an impact on university finance when educational accountability policy considers research productivity as a dimension of quality to be assessed. Even though research productivity is not perfectly related to quality, it has been linked to funding and it is obvious that a university rating is largely affected by a function of research than teaching (Print, & Hattie, 1997).

Recently research productivity has been thought of being a valid indicator of faculty quality and information about faculty research productivity is useful for administrators to make administrative decisions such as faculty hiring and retaining. Universities would like to hire and retain faculty who have perceived acceptable quality necessary to enhance student learning and some functions of university. Faculty research productivity is a dimension of faculty quality. Thus, it implies that faculty has to be productive in research in order to secure tenure and promotion.

In addition to external forces, university has been forced by accountability policy to delivery high quality instruction to students and then university performance has to be assessed to provide evidence for accountability decisions. For example, universities in Thailand including STOU have been monitored and assessed the quality of instruction delivery by the Office of Higher Education Commission and the Office for National Education Standards and Quality Assessment (Public Organization) which is an evaluation organization working independently from the Ministry of Education, and the research productivity is one of criterion for such monitoring and evaluation by two organizations.

Therefore, research productivity is a significance indicator of quality assurance activities among higher education institutions. With regard to high pressure from both external and internal sources, universities have put great effort to enhance research productivity of faculty. Therefore, it is essential to understand how higher education institutions have currently achieved in terms of efforts to support research productivity. This study focuses on the study research productivity of distance higher education institutions in Asia. Specifically, this study collected research productivity from faculty members of selected two universities and, based the collected information, this study created a model of research productivity of faculty members by using the planned behavior theory to explain the variation of research productivity among faculty members. The resulting information would benefit open universities in shaping their research strategies and efforts to increase research productivity.

2. Objectives

The primary objective of this study was to determine factors that influence research productivity of faculty in distance higher education by adopting the model of planned behavior theory (Ajzen, 1991) as a model to examine the extent of effects of components in the planned behavior theory on research productivity.

3. Significance of this study

This study provided valuable information for open universities to better insight about how to enhance research productivity. The results of this study would also provide insightful information for administrators of both universities to make valid decisions regarding how to support and enhance research productivity of faculty.

4. Literature Review and Conceptual framework

4.1 Research productivity and its measures

Research productivity which is related to scholarly work of faculty is considered a significance aspect of faculty quality. Research productivity is defined differently across academic fields. For example, research productivity is defined by Print and Hattie (1997) as “*the totality of research performed by academics in universities and related context within a given time period*”. Even though it is defined differently, research productivity is generally related to publications in books and journals, publication citations, research grant, awards, and professional services (Print & Hattie, 1997).

There are several research productivity indicators developed to measure research productivity of institutions and faculty members. Most of developed indicators are related to faculty scholarly works. Such scholarly works that have been used to measure research productivity are research grants, research students but publication counts are acknowledged to be the most valid, fair, and direct measure of research performance against academics (Grigg and Sheehan, 1989).

Even though counting is a common approach to measuring research productivity, it is not a perfect measure of productivity. Counting is a calculation of the number of publications generated by a faculty member. Because counting is a straightforward it is used widely to quantify research productivity of institution and faculty members. Among other types of counting used in practices, citation analysis which is an approach to counting, measures the frequency in which articles, authors, or journals are referenced (cited) in other articles (Hasselback, Reinstein, & Schwan, 2000). However, the number of citations is just counted and it may not ensure quality of articles.

4.2 The planned behavior theory

Developed by Ajzen and Fishbein in 1980, the theory of planned behavior known as the theory of reasoned action has been applied in many contexts such as for changing health- and safety related behaviors. This theory is based on the idea that humans are rational and have control over what we do. Human intentions will predict behaviors. A person's intentions to behave in a particular way are in turn influenced by that person's beliefs, attitudes, and perceptions of norms (Funnell, & Rogers, 2011). Later Ajzen (1991) added a component of individual' perceived behavioral controls, as an antecedent of intentions, to this theory. Such components of the planned behavior theory are depicted as in Figure 1.

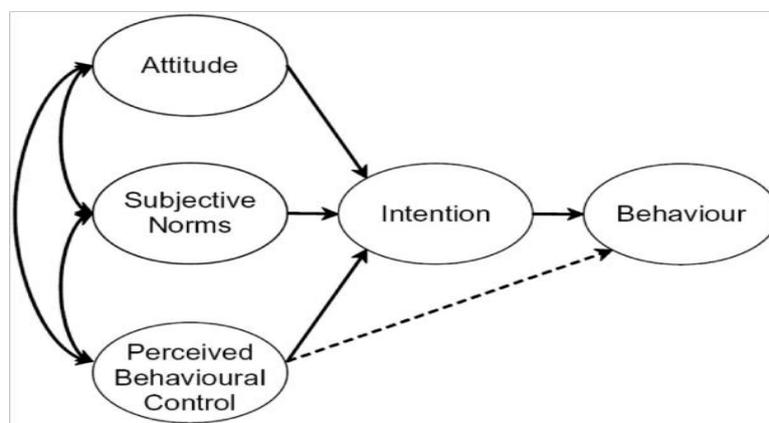


Figure 1: The Theory of Planned Behavior (Ajzen, 1991)

Several theories are developed to explain human behaviors (e.g. conducting research), but theory of planned behavior has been used widely. Therefore, this study employed the theory of planned behavior to predict research productivity of distance higher education universities.

4.3 Conceptual framework

The research conceptual model in this study was developed by adopting the feature of the planned behavior theory as a guideline to develop a model of research productivity which is developed and shown in Figure 2. Because an individual is a member of organization, it is therefore believed that their performance and psychological attributes are not inevitably influenced by some contextual factors within the organization in which he/she is located.

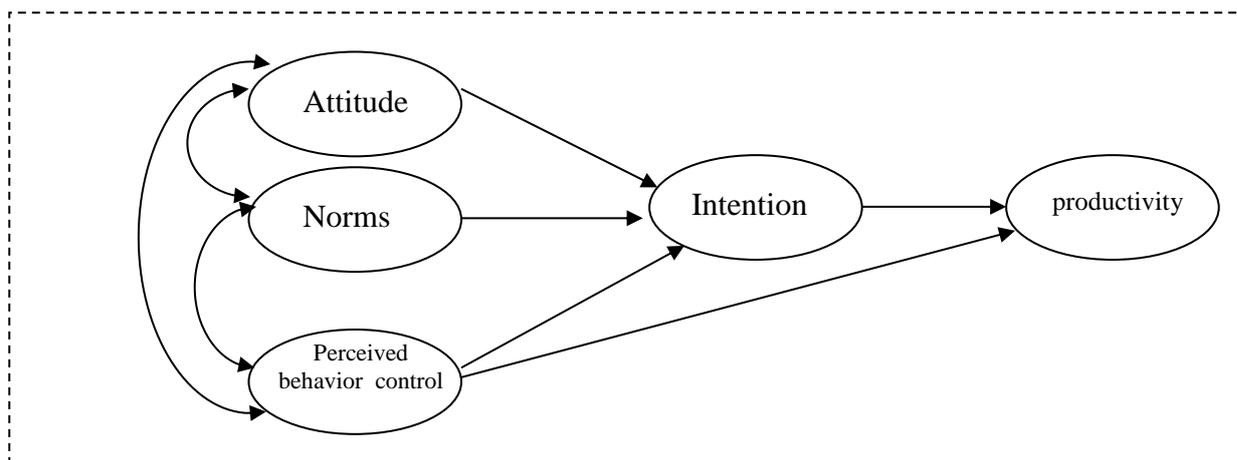


Figure 2: Conceptual model

5. Research Method

To answer the research questions mentioned above, research productivity was defined as the totality of research performed and publications were first measured to provide evidence of research productivity of faculty members. Structural equation model was then used to investigate how the theory planned behaviors associates with research productivity of faculty members of the two universities. Then qualitative approaches including interview and document reviews were employed to document strategy and measures worthwhile for KNOU and STOU to strengthen their research productivity. The following details research design of this study.

5.1 Population and sample

Two samples of faculty members of Sukhothai Thammathirat Open University (STOU) and Korea National Open University (KNOU) were drawn by using a convenient sampling while the author of this study visited KNOU in 2012. The two samples of participants were drawn by which school was chosen as a stratification variable. Questionnaires were sent to the selected samples by both mails and emails. There were 88 and 3 faculty members of STOU and KNOU respectively completed the survey.

5.2 Measurement

The questionnaire was developed to measure variables highlighted in the conceptual model of research productivity shown in figure 2. There are two sections in the questionnaire. The first section consisted of demographic data questions that included sex, teaching experience, academic rank, as well as number of research and publications of individual faculty members. The second section measures four variables hypothesized to affect faculty research productivity including attitude, social norms, perceived behavior controls, and intention to perform research. The definitions and how the questionnaire was developed were as follows.

Attitude was defined as “the degree of a faculty’s favorable or unfavorable evaluation or appraisal of behavior in question. There are 6 items to measure attitudes and they are Likert type scales consisting of 7 categories ranging from 1 (strongly disagree) to 7 (strongly agree). The Cronbach’s alpha coefficient for this measure was 0.94.

Subjective norms was defined as the perceived social pressure to conduct research and publications. There are 4 items to measure subjective norms and these items are Likert-type scales consisting of 7 categories ranging from 1 (strongly disagree) to 7 (strongly agree). The Cronbach’s alpha coefficient for this measure was 0.91.

Perceived behavioral control was defined as faculty' perception of ease or difficulty in conducting research and in making publications. 7 items were used to measure perceived behavior controls and these items are Likert-type scales consisting of 7 categories ranging from 1 (strongly disagree) to 7 (strongly disagree). The Cronbach's alpha coefficient for this measure was 0.83.

Intention was defined as faculty' intention to do research and make publications. 4 items were used to measure intention and they are Likert-type scales consisting of 7 categories ranging from 1 (strongly disagree) to 7 (strongly disagree). The Cronbach's alpha coefficient for this scale was 0.90.

Research productivity was measured by counting the total number of research and publications of individual faculty. This study explores more dimensions of the total number of research and publications than other previous research. That is six aspects of research and productivity were counted so as to provide dept and broader research productivity and these dimensions include the number of research completed as a principle investigator, co-investigator, number of publications published in English and their own language journals, and the number of ongoing research and manuscripts. The Cronbach's alpha coefficient for this measure was 0.68.

5.3 Data Analysis

Structural equation model (SEM) was used to assess whether the research productivity model developed by employing the theory of planned behavior of Ajzen (1991) fits empirical data. In addition, it was used to examine if the proposed research productivity models of two universities explain the associations among research productivity and its determinants.

SEM requires large sample to provide valid estimates of parameters of interests. There are several approaches to determining sample sizes for a study employing SEM. The common agreement among practitioners is that larger sample is better. However, the question of how large of sample size is sufficient to perform data analysis using SEM is difficult to provide answer. Iacobucci (2010) recommends that a sample size of at least 50 is sufficient. The common approach to sample size determination widely used in practice is that the sample size of 10-20 times of observed variables in the model are thought to be sufficient. Bentler, &Chou (1987) describe the minimum requirement as five cases per parameter estimates. As shown in the conceptual model, there are 13 parameters to be estimated. Given this rule, the required sample size of this study should be $13*5=65$ which is less than 91 responses. Therefore a sample size of 91 of this study is considered sufficient to give unbiased estimates of SEM. However, because of there are only 3 responses of KNOU faculty members this study was unable to test if the model of research productivity is invariant between STOU and KNOU.

6. Results

The development of the research productivity model in this study by using the theory of planned behavior has two objectives. First, it was intended to examine to understand factors that potentially affect research productivity of the two universities and the second objective was to perform a model fitting test to assess if the developed model fits empirical data collected from faculty members of the two open universities. Correlation among variables to be tested in the model including attitude (ATTITUDE), social norms (SNORM), and perceived behavior control (PCB), intention (INTENTION) and research productivity (PRODUCTIVITY) and their descriptive statistics were shown in Table 1.

Structural equation model was used to test the hypotheses regarding the effects of attitude (ATTITUDE), social norms (SNORM), and perceived behavior control (PCB), and intention (INTENTION) on research productivity (PRODUCTIVITY). The results of SEM analysis showed that research productivity model fitted data very well ($\chi^2=0.80$, $df=2$, $p=.67$, $RMSEA=0.00$, $CFI=1.00$). The final model that shows direct effect estimates is depicted in figure 3. Table 2 shows direct effect estimates. It was found that intention to perform research had a significant direct effect on research productivity ($b=2.123$, $p=0.016$). Attitude to research and publication had a significant effect on intention ($b=.585$, $p<.001$). It is also found that faculty's perceived behavior controls had a significant effect on intention to perform research ($b=.382$, $p=0.005$).

For indirect effects as shown in Table 3, attitude had the largest effect on research productivity ($b=1.243$, $\beta=.151$), followed by perceived behavior control ($b=.812$, $\beta=.081$), and social norms ($b=0.077$, $\beta=0.011$), respectively.

Table 1

Variances, Covariances, Mean (M) and standard deviations (SD) (n=91)

				M	SD
PRODUCTIVITY	100.00			50.00	10.00
ATTITUDE	2.27	1.59		4.78	1.26
SNORM	-0.52	0.29	2.12	3.82	1.46
PBC	0.92	0.87	0.31	1.06	4.16
INTENTION	3.72	1.21	0.32	0.88	2.02

Table 2

Direct Effects

	Estimate	S.E.	C.R.	p-value	Standardized
INTENTIO <--- ATTITUDE	.585	.108	5.418	***	.503
INTENTIO <--- SNORM	.036	.078	.466	.641	.038
INTENTIO <--- PBC	.382	.137	2.781	.005	.270
PRODUCTI <--- INTENTIO	2.123	.885	2.400	.016	.301
PRODUCTI <--- PBC	-.838	1.251	-.670	.503	-.084

Table 3

Standardized Indirect effects on research productivity

	PBC	SNORM	ATTITUDE	INTENTIO
INTENTIO	.000 (.000)	.000(.000)	.000(.000)	.000(.000)
PRODUCTI	.812(.081)	.077(.011)	1.243(.151)	.000(.000)

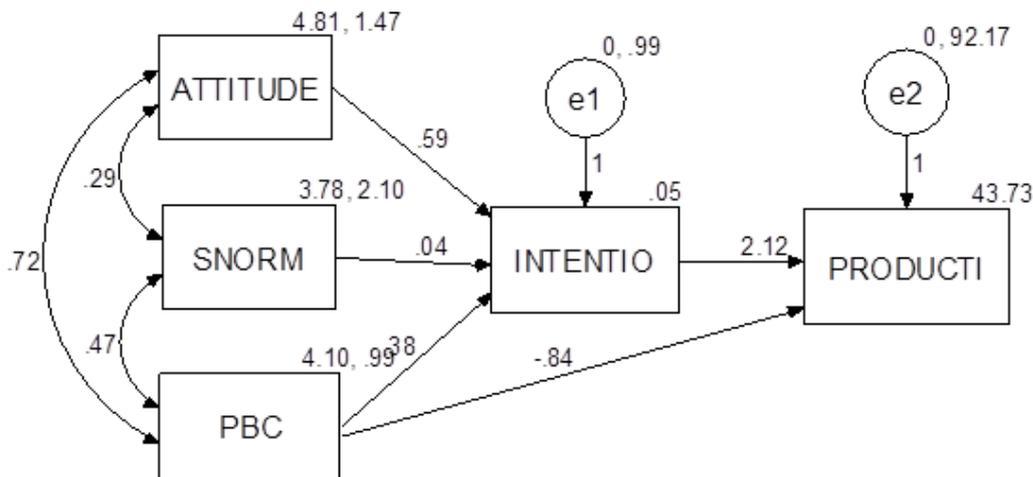


Figure 3: Final model and its parameter estimates

7. Summary and Discussions

The primary objective of this study was to examine factors that strengthen research productivity of open university faculty members. It was found that faculty's intention to perform research is a major factor to influence research productivity. In addition, attitude to research and perceived behavior control are two factors that have indirect effects on research productivity through intention.

This study found that research productivity of faculty of open universities was highly associated with their intention to do research. The implication of this study is that to enhance faculty research outputs it is important for university to nurture faculty's intention to do research in an appropriate way. Previous research evidences indicate that intention was caused by several factors such as knowledge, attitude, and support. Therefore universities may support faculty and provide research infrastructures necessary to perform research. Supports may be in various forms such as providing training for young faculty, as well as research tools (e.g., computers, software) that are necessary for doing research. This finding is consistent with the planned behavior theory (Ajzen, 1991). However, it was found that social pressure to do research was not correlated with intention. This finding was not coincided with the planned behavior theory of Ajzen (1991). The explanation of this may be because faculty members are mature and independent from each other and thus influence from peers may not affect their decisions and actions especially decisions to do research and publications.

8. Limitation and Future Research

The major limitation of this research is that this study used a convenient sampling and small sample sizes. For future research, the relative influence of attitudes and norms has been found to vary from population to population (Funnell, & Roger, 2011). Therefore it would be interesting to investigate if the research productivity model is invariance with respect to effects of antecedents and determinant on productivity. However, this study has a limitation to perform this investigation because KNOU sample size is relative small to perform multiple groups SEM analysis. So it may be interesting to conduct future research in this area.

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Creation and development of Open Educational Resources (OER's) using transmedia contents



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Abstract

The proposal of this paper is the study of a communication process, called transmedia storytelling, current nowadays. The transmedia storytelling is described as a story which is presented in various media platforms, selected according to the most expressive potential of each one. According to considerations of some authors as Henry Jenkins (2009), Pierre Lèvy (1999) and Vicente Gosciola (2010), data collection of narratives of Harry Potter, Matrix, Heroes, Star Wars and Lost, and interviews with fans, the research contributes to the study of the impact of convergent culture. Being so, we proposed the observing of characteristics and potential applications of transmedia storytelling in Communication and Education. The main objective of this paper is to discuss different ways of creation and development of Open Educational Resources (OER's), based on five narratives. And, if these narratives are a success concerning entertaining people, and mostly among fans, they can, consequently bring positive results to education, as a new way for the teaching-learning process. Thus, using the educational and communicational potential of this transmedia storytelling, an open educational proposal, which is interactive, limitless, free, flexible and accessible to students, could be developed, and the knowledge of an individual may be shared between authors and users, besides being used as other tools for teaching, learning and research. This study shows a new perspective about the construction of the OER's using resources from the transmedia storytelling which is extremely required for the growth of collaborative education.

Keywords: Open Educational Resources, Transmedia Storytelling, Education

Transmedia Narratives and Open Educational Resources

With the increasing of the digital era, the internet has been used as a way of learning more and more. The web 1.0, the first generation internet, which was an environment where people used only to navigate and get information, does not exist anymore. Nowadays, with the web 2.0, people have the urge for interaction and also for exchanging information. And

this process has been used by the *Homo media* or rather, “*aquele que não só está entre os meios de comunicação, mas interage com eles, neles interfere e por eles é influenciado*” (GOSCIOLA, 2010)¹. Unlike other media, the internet has the potential to make people participate, create and interact using their knowledge. This process requires more of the individuals, causing them to have more attention and reasoning, and requests an active posture, away from the passivity of watching television (Versuti, 2011). After this need for interaction had been perceived, transmedia narratives were created, which is a term coined by Henry Jenkins in 2003. And what would those narratives be? The transmedia storytelling can be conceptualized initially as a great story.

What differentiates it from other big stories is that it is divided into parts. The most important one is the main story, which does not count because everything is complemented by additional stories. Another feature that makes it even more unique is that each of these stories is conveyed by a different means of communication, defined by the one who can best express them. (Gosciola, 2011)

Using transmedia narratives and the new virtual environment, called web 2.0, networks of learning and / or co-learning through the Open Educational Resources (OER), can be developed. According to UNESCO (2011), OER’s are teaching materials, learning and research in any media, provided that they are in the public domain, or are licensed openly or adapted by others. Its format of open content facilitates the access, use and potential reuse of resources published digitally.

One can say that with information sharing, virtual environments can be created where people with common interests can create or reuse information, a process that can be called collective intelligence. No one can know everything, each one of us knows something, and we can join our knowledge, if we associate our resources and join our abilities. The growth of cyberspace does not automatically determine the development of collective intelligence, this intelligence only provides an appropriate environment (Levy, 1999).

Data of the *Star Wars*, *Matrix*, *Lost*, *Heroes* and *Harry Potter* franchises

The narratives studied in this text are five: *Star Wars*, *Matrix*, *Lost*, *Heroes* and *Harry Potter*, chosen because they are franchises that have a large number of fans of all ages, and are transmedia narratives, ie, all five of these franchises have the original story and others that expand them. However, the aim of this work is the creation of OER only for the *Harry Potter* franchise.

The story of *Star Wars* began in 1977 with the release of the first film, *Star Wars*, written by George Lucas. Then it was followed by two more films in the series: *Empire Strikes Back* and *Return of the Jedi*. Sixteen years after the release of the last film of this trilogy, a new start was given. The franchise also has an official website (www.starwars.com), where fans have access to videos, games, virtual store, besides watching the movies.

The franchise also has a TV series, *Clone Wars*, animated short films - based on the *Lego* toy line, a feature film animated in computer graphics, as well as comics, animation,

¹ “the one who is, not only among the means of communication, but also interacts with these means, interfere in them and are influenced by them” (GOSCIOLA, 2010)

and various games. In one of the largest sites of fanfics¹, the FanFiction (www.fanfiction.net) has about 29,789 fanfics based on Star Wars narrative.

The first film of the Matrix trilogy, created by the Wachowski Brothers, was released in 1999, grossing about 456 million dollars. Followed by the second film, *Matrix Reloaded* was released in May 2003, and the third *Matrix Revolution* in November 2003. This film series does not end with the end of the trilogy, because the trilogy was designed to be multimedia. It means a connecting piece, linking and / or explaining another. E.g., besides the three films, there are the cartoons, the *Animatrix* - and the first episode tells the story that goes between the first and second film, comics, released only in the United States, and the game *Enter the Matrix*, completing the story of the second film. Furthermore, there are fanfics found in FanFiction.net. It is thus, multimidiatic, that Matrix expands their stories.

Lost is a TV series, has six seasons, total of 121 episodes. It is considered the second most watched series in the world and in 2005 it was considered the best TV series by netizens. Created by Damon Lindelof, Jeffrey Lieber and J. J. Abrams, follows two strands, it tells the story of 48 survivors of a plane crash that will live on the same island, and also shows the life of them before it happened, as shown in flashback. What also helps explain some mysteries that happen on the island. The series has been criticized and realizing that some issues in *Lost* were not solved or explained and the fans took the chance to expand the series through *fanfics*, *fanfilms*, forums, *blogs*, websites and the *Lostpedia*, based on the Wikipedia site, which has information about the series. Some fans were sharing and exchanging information with each other in the series when they decided to build the site.

Besides the interaction created by the fans, producers and writers of the series have created a game based on the series, *The Lost Experience*, which was posted on the Internet, also a place where fans could play it. The game worked together with the TV series. Fans watched an episode of *Lost*, and then entered the universe of the series through the game. But what happened in the game was not what had happened in the past episodes, this was a privilege of those who played *Lost Experience*. In the game, fans could find some clues, which led to the elucidation of the mysteries of the island, or led to a clue to the explanation that would be present in other media such as a book, a website, a magazine, and so on..

The TV series, *Heroes*, created by Tim Kring, drew about 14.5 million viewers per episode in its first season. In the second season, the success has continued, there were 13.1 million viewers per episode. The TV series *Heroes* ends with four seasons. Like every great franchise, *Heroes* also launched their brand on the Internet, *Heroes Evolution* (<http://www.nbc.com/heroes/evolutions/>), an extension of the series, in which can be found all over the fictional universe of *Heroes* (photos, videos, web series, game, virtual shop, interviews). Moreover, there are the comics, which also served as a basis for explaining about some characters in the series.

The Harry Potter franchise began with seven books written by the British author JK Rowling. Harry Potter brought in, despite being seven books, eight films, the last of which, *Harry Potter and the Deathly Hallows*, divided into two parts. It was the most profitable film series, totaling approximately \$ 7.7 billion worldwide by the end of 2012. However, even with the end of the literary saga (2007) and film (2011), the franchise has not been forgotten, because besides the successes of his books and movies, the saga won, too, its space on the internet. The own author of the books, launched the *Pottermore* (www.pottermore.com), and interactive website that encourages online reading based on the books and thus allows fans to

¹ Fictions created by fans using the universe of a particular narrative (characters, spaces, special characteristics) to create their own story and spread it on the internet. Note that this is a non-profitable activity.

share and exchange stories and information about the "Potterian" world . Besides, there is also the *Potterish*, the largest site about Harry Potter in Brazil. Fans around the world can find news about the show, interviews with J. K. Rowling's, stories created by the fans from the series, which are about 25,000 stories written by these fans (<http://potterish.com/>).

Narrative potential of *Harry Potter* in Education

The Harry Potter franchise may be the facilitator of the teaching process, because from interviews with fans of this narrative, it was confirmed the potential it has. The interviews were conducted on March 23rd of 2013 with the group *Pottering* fan club of the *Harry Potter* franchise, in the Aracaju city, in Sergipe, Brazil. The *Pottering*, also known as EP, acronym for Potterian meeting (nationally recognized acronym), has ten fixed members in its monthly meetings. The interviews were conducted by the Focus Group research tool. For Caplan (1990), focus groups are "small groups of people gathered to evaluate concepts or identify problems." Such groups get started having meeting with six to ten people, and in the case of this specific interview it was held with seven fans of the narrative. With the implementation of the Focus Group, the unity of the participants could be felt, the group interaction that together enriches the responses of their peers and stimulated new ideas. The interview followed a script of questions and suggestions of how the Harry Potter franchise can be worked in conjunction with education.

All this potential of communication that Harry Potter has given the possibility to insert it in the learning process, as it is a narrative that arouses the interest of young people and allows the relationship with the regular content of schools, e.g., in the discipline of history the contents about *Inquisition*, *Mythology*, can be worked on making relation to the story of Harry Potter. Besides the teamwork, that can be developed between student / student, student / teacher interaction, sharing, and also the use and reuse of information. Thus, besides the students gain knowledge, they are also connected, surrounded and attracted by the media today, and will also be working with something they are accustomed to use as entertainment, the story of *Harry Potter*, which greatly attracts them.

The most repeated concept during the interview was the contribution of Harry Potter in History. And so that students are interested in participating, films of this franchise will be used. Additionally, for the class to be well developed it is necessary that students know about the story in question, so the teacher should summarize the **history** of the series, for those who do not know, before recommending the movies. Thus, the proposed class, based on the Harry Potter series, is related to the Greek Mythology, from the History subject.

At first moment in class, the teacher will apply the subject of Greek Mythology, normally. Soon after, he will talk about the *Harry Potter* series, what it is, what the end is like, that is, make a general summary, and then pass the first film of the saga, *Harry Potter and the Philosopher's Stone*, so it can exemplify the exercise which will be assigned to students. In their example, the teacher will comment on the "animagi", i.e., witches that turn into animals and do not lose their magical powers. And it was, first in the Greek mythology that some beings have demonstrated this ability, such as Proteus, the servant of Poseidon, God of the Oceans. Proteus had the ability to know the past, present and future, and for this reason he was much sought after. And then he turned into various animals and monsters so that he could be at peace.

Continuing from the screening of the film, the theories taught in the classroom and exemplification, the teacher will invite students to choose any other *Harry Potter* film, among the eight, including the first, which was played in the classroom to illustrate other kinds of mythology in the chosen movie. The student will make an issue about the chosen film and then, what was the chosen character (it can be people, animals, objects, places) and defend which character in Greek mythology he represents, and interpret the meaning of the

character in the series, thus the student can identify and / or discover new myths. And with the texts finalized, there will be presentations and discussions on the choices of each one. For this, the teacher should create a virtual environment for teaching and learning, either a forum, blog, social media, e.g. a Facebook page for students to post their texts and then the other students and the teacher himself may have access to them, comment, collaborate, add some information. And anyone who wants to participate, interact and contribute to the subject, the virtual environment is open, because that's how these contents become OER. Transforming texts in open content, they can be used; reused, shared, making the knowledge becomes more accessible.

With the creation of these texts, the students, in addition to acquiring more information about the main subject (Greek Mythology), train their writing and learn techniques for producing a text (spelling, cohesion, coherence) and reading (reading comprehension). This exercise can also be done in groups for interaction, and more collaboratively work between students and the teacher. And in order to have a well-developed work it is necessary to use books as much History as the books of the saga and that students have access to the network.

Final Considerations

Transmedia narratives are stories told through various means, and each half is chosen so that it can better represents it, thus reaching various individuals, such as the five narratives studied (*Harry Potter*, *Star Wars*, *Matrix*, *Lost* and *Heroes*), which are fragmented enough for that. They contribute to the educational process and aid the creation of Open Educational Resources (OER) from its contents.

We conceptualize OER as digital materials openly available for being used in anyone teaching and / or learning. They can be textbooks, full and / or partial courses, papers, videos and any other means that can facilitate the achievement of knowledge.

Among the five mentioned transmedia narrative mentioned in this paper the *Harry Potter* franchise was used for the development of a proposal in class. Its history can help in the teaching of various contents, specifically in Greek Mythology. From then on we created a class draft, in which students must identify the myths of the chosen film saga and explain his or her choice in a text. The class will be implemented in the virtual environment chosen by the teacher (blog, social networks, forums, etc.) and to post their content, students will create open educational resources by them, in addition to working collaboratively and interact with each other and the teacher, the students are getting used to new technologies, and since the virtual environment and the contents will be opened, students and the teacher may have opinions of people from other places and with new information they may contribute to the virtual environment, thereby , putting the collective intelligence in practice.

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Review of the Current OER Search Dilemma



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Abstract

Open Educational Resources (OER) are fast gaining traction amongst the academic community as a viable means of increasing access and equity in education. The concept of OER is of especial significance to the marginalised communities in the Global South where distance education is prominent due to the inability of conventional brick and mortar institutions to cope with the growing demand. However, the wider adoption of OER by academics in the Global South has been inhibited due to various socio, economic and technological reasons. One of the major technological inhibitors is the current inability to search for OER which are academically useful and are of an acceptable academic standard. Many technological initiatives have been proposed over the recent past to provide potential solutions to this issue. Among these are OER curation standards such as GLOBE, federated search, social semantic search and search engines such as DiscoverEd, OCW Finder, Pearson's Project Blue Sky. The research discussed in this paper is carried out in the form of literature review and informal interviews with experts. The objective of the study is to document the extent of the OER search issues contributing to the slow uptake of the concept of OER. This review paper discusses the current OER search dilemma and the impact of some of the key initiatives which propose potential solutions.

Keywords: Open Educational Resources, OER, OER Search, OER Search Technologies

1. Introduction

With the new drive towards accessible and open information, Open Educational Resources (OER) have taken centre stage after being first adopted in a UNESCO forum in 2002. OER can be defined as “*web-based materials, offered freely and openly for use and re-use in teaching, learning and research*” (Joyce, 2007). Although many countries have, in theory, embraced the concept of OER, it is still to become mainstream academic practice due to various inhibitors. One such inhibitor is the inability to effectively search for OER which are academically useful and are of an acceptable academic standard.

With the dramatic changes taking place in Higher Education (HE) within the past 10 years, academics have had to adopt new cost effective approaches in order to provide individualised learning to a more diverse student base (Littlejohn, Falconer & McGill, 2008). In this context,

OER has the potential to become a major source of freely reusable teaching and learning resources, especially in higher education, due to active advocacy by organisations such as UNESCO, the Commonwealth of Learning (COL), Organisation for Economic Co-operation and Development (OECD); and the International Council of Distance Education (ICDE).

Despite the fact that OER were initially limited to text based material and are still predominantly in text based formats, they are not restricted by the media types or the file types used. Many modern OER are released as images, movie clips, animations, datasets, audio clips, podcasts, among others, providing rich multimedia based material for use and reuse. These multimedia resources are made available through large repositories such as YouTube¹ (video), Flickr² (images) and iTunesU³ (podcasts) under the *Creative Commons* (CC) licensing scheme.

According to McGreal (2010), modern OER repositories can be classified into three categories:

- *Content repositories* – hosts content internally within the repository.
- *Portal repositories* – provides searchable catalogues of content hosted in external repositories.
- *Content and portal repositories* – hosts content internally in addition to providing catalogues of content hosted externally.

Within these three types of repositories, Wiki, “...a software tool that promotes and mediates discussion and joint working between different users...” (Leuf & Cunningham, 2001), plays a central role in the present day OER arena. Projects such as WikiEducator, Wikibooks, Wikimedia Commons and Wikiversity are among the popular Wiki based OER repositories. Another widely used repository is *Rhaptos* developed by Rice University. This repository hosts the popular Connexions OER repository which allows the easy creation, use and re-use of text based learning objects (LO). The *Rhaptos* platform is currently also being used by other repositories such as Vietnam Open Educational Resources (VOER) under FOSS licenses. When considering institutional OER repositories, the popular DSPACE⁴ repository systems is the most commonly used due to its compatibility with existing library systems and protocols. However, DSPACE only acts as a repository of content and does not provide features which facilitates reuse and remix of resources.

The attribute common to all of these repositories is the use of metadata for resource curation. These metadata are defined according to established standards such as Dublin Core Metadata Initiative (DCMI) and IEEE Learning Object Metadata (IEEE LOM). However, one of the key concerns regarding OER curation is the standardisation of metadata across repositories and ensuring the integrity of the metadata defined by content creators. The manual cataloguing of OER has also become an issue due to the human resources required to keep up with the constant expansion in OER volume. However, new technology platforms and initiatives are currently being developed which will eventually lead to viable solutions to these issues. This paper briefly introduces some promising innovations which claim to provide long term solutions to the current OER search dilemma. The rest of the paper discusses the current OER search dilemma and looks at some promising innovations currently in development.

¹ <http://www.youtube.com/>

² <http://www.flickr.com/>

³ <http://www.apple.com/education/itunes-u/>

⁴ <http://www.dspace.org/>

2. The Current Dilemma

Over the recent past, many global OER initiatives have been established by organisations such as UNESCO, COL and the United Nations (UN) to name a few. Among these initiatives are the ‘Education for All’ initiative by the UN and World bank (Geith & Vignare, 2008), the Open e-Learning Content Observatory Services (OLCOS) (Geser, 2007), OER Africa (OER Africa, 2009), the African Virtual University (AVU) (Bateman, 2006), China’s Open Resources for Education (CORE) (Downes, 2006), Japan’s Open Courseware Consortium (JCW) (Fukuhara, 2008), Teacher Education for Sub-Saharan Africa (TESSA) (Moon & Wolfenden, 2007), the European educational digital library project ‘Ariadne’ (Duval et al., 2001), eVrest which links Francophone minority schools across Canada (Richards, 2007) and the Blended Learning Open Source Science or Math Studies Initiative (BLOSSOMS) (Larson & Murray, 2008). A great majority of these OER initiatives are based on established web based technology platforms and have accumulated large volumes of quality resources which are shared openly. However, one limitation inhibiting the wider adoption of OER is the current inability to effectively search for academically useful OER from a diversity of sources (Yergler, 2010). This limitation of locating *fit-for-purpose* (Calverley & Shephard, 2003) resources is further heightened by the disconnectedness of the vast array of OER repositories currently available online. As a result, West & Victor (2011) argue that there is no single search engine which is able to locate resources from all the OER repositories. Furthermore, according to Dichev & Dicheva (2012), one of the major barriers to the use and re-use of OER is the difficulty in finding quality OER matching a specific context as it takes an amount of time comparable with creating one’s own materials. Unwin (2005) argues that the problem with open content is not the lack of available resources on the Internet but the inability to effectively locate suitable resources for academic use. The Paris OER Declaration (2012) states the need for more research in this area as “*encourage the development of user-friendly tools to locate and retrieve OER that are specific and relevant to particular needs*”. Thus, the necessity of a system which could effectively search the numerous OER repositories with the aim of locating usable materials has taken centre stage.

The most common method of OER search is generic search engines such as Google, Yahoo! or Bing (Abeywardena, Dhanarajan & Chan, 2012). Even though this method is the most commonly used, it is not the most effective as discussed by Pirkkalainen & Pawlowski (2010) who argue that “*...searching this way might be a long and painful process as most of the results are not usable for educational purposes*”. As possible alternatives, many methods such as Social-Semantic Search (Piedra et al., 2011), DiscoverEd (Yergler, 2010) and OCW Finder (Shelton et al., 2010) have been introduced. Furthermore, semantic web based alternatives such as Agrotags (Balaji et al., 2010) have also been proposed which build ontologies of domain specific keywords to be used for classification of OER belonging to a particular body of knowledge. However, the creation of such ontologies for all the domains discussed within the diverse collection of OER would be next to impossible. Furthermore, Abeywardena, Raviraja & Tham (2012) state that despite all these initiatives there is still no generic methodology available at present to enable search mechanisms to autonomously gauge the usefulness of an OER taking into consideration (i) the level of openness; (ii) the level of access; and (iii) the relevance; of an OER for ones needs. As such, new innovations need to take place to address the present technological issues hampering the growth of the OER movement.

3. Some Promising Innovations

As discussed earlier, there are many research initiatives exploring various technological angles trying to provide long term solutions to the current OER search dilemma. Among these research projects, there are a few experimental or prototype initiatives which provide great promise on a global scale.

Pearson's Project Blue Sky

One of the more exciting technologies unveiled recently is the *Blue sky* project (Kolowich, 2012) by the global publishing giant Pearson. This custom search engine specifically concentrates on searching for OER with an academic focus. The platform allows instructors to search for e-book chapters, videos and online exercise software from approximately 25 OER repositories distributed worldwide. However, it gives precedence to e-book material published under Pearson. Irrespective of this possible bias towards its own products, Associate Professor David Wiley states that “*the more paths to OER there are in the world, the better*” (Kolowich, 2012).

GLOBE

Another promising initiative is the Global Learning Object Brokered Exchange (GLOBE) initiative which uses a federated search approach to solving the OER search dilemma. The GLOBE consortium, which was founded in 2004, has now grown to 14 members representing America, Asia, Australia, Europe and Africa. GLOBE acts as a central repository of IEEE LOM educational metadata harvested from various member institutional repositories. Users are provided with a single sign-on query interface where they can search for resources across repositories, platforms, institutions, languages and regions. As of February 2012 the total number of metadata harvested available through globe is 817,436 (Yamada, 2013). The consortium is currently expanding its reach to more institutions worldwide. One limitation however is the standardisation, harvesting and tagging of the constantly expanding volume of resources.

LRMI

Among the highly anticipated initiatives is the Learning Resource Metadata Initiative (LRMI) launched by the Association of Educational Publishers and *Creative Commons*. This project aims to build a common metadata vocabulary for educational resources. This *common metadata framework* is used for uniform tagging of web based learning resources. According to the official website of the project, it believes that “*Once a critical mass of educational content has been tagged to a universal framework, it becomes much easier to parse and filter that content, opening up tremendous possibilities for search and delivery*” (<http://www.lrmi.net/about> retrieved May 13, 2013). The inclusion of LRMI into schema.org, a joint project by Bing, Google and Yahoo! looking at standardising metadata, is an early indication of the potential global impact.

Desirability Framework

The *desirability* of OER, proposed by Abeywardena, Raviraja & Tham (2012), is a parametric measure of the usefulness of an OER for a particular academic need. This framework provides a breakthrough in the parametric measure of the usefulness of OER by

search engines taking into consideration (i) *level of openness*: the permission to use and reuse the resource; (ii) *level of access*: the technical keys required to unlock the resource; and (iii) *relevance*: the level of match between the resource and the needs of the user. By calculating the *D-index*, the measure of *desirability*, for a particular set of OER search results, search engines can better present OER which are more suitable for use and reuse in a given academic scenario. The relative simplicity of the *desirability* framework allows it to be easily incorporated into any existing OER search mechanism.

OERScout

In contrast to the large scale projects such as Blue Sky, GLOBE and LRMI, *OERScout* (Abeywardena et al., 2012) is a relatively small research project which looks at providing a solution to the OER search dilemma by autonomously generating metadata for a particular resources. The novelty and innovation of this project can be largely attributed to the clustering and text mining approaches used in the design to “read” text based OER, “understand” them and tag them using autonomously mined domain specific metadata. This approach eliminates the need for manually tagging resources with human defined metadata. Thus, *OERScout* provides a viable solution to tackle the need for increased human resources due to the exponential expansion in OER volume. *OERScout* also incorporates the *desirability* framework and a faceted search approach which allows users to quickly zero-in on the most suitable resources. Many experts believe that the technological concepts behind *OERScout* would be a game changer challenging the traditional norms of OER search.

4. Conclusion

Open Educational Resources (OER) are fast gaining traction in the academic community as a viable solution to educating the masses. However, despite the fact that many governmental, non-governmental and philanthropic organisations have heavily promoted the OER movement, it is still to become mainstream practice in many countries and regions. One limitation hindering the spread of OER is the current dilemma with respect to OER search. Based on the literature, no search engine exists at present which has a keen focus on locating OER distributed worldwide. Providing some hope are initiatives such as Pearson’s Project Blue Sky, GLOBE and LRMI which looks at solutions to this issue on a global scale. In addition, there are other ambitious research projects such as the *desirability* framework and *OERScout* which look at breaking the norms in conventional OER search to provide game changing solutions. With more and more research interests growing in this area, the future of OER seem to be positive.

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Building Research Capability at a Distance



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Abstract

Teaching graduate-level research is confounded by two difficulties: one is the practitioner background of students whose focus has likely been on the critique and consumption of research findings rather than on the underpinnings and procedures for knowledge construction through research; and the other is the mentorship involved in their acquisition of research knowledge and skills requiring one-on-one interaction that puts digital form of learning into question. Can teaching research online build research capability?

The paper aims to contribute to the discussion on how learning is accomplished in distance education by advancing the argument that technology is not a tool but an agent that mediates the teaching-learning process. The paper shall expound on the concept of agency and in what way web-based technology performs the agentive role. Illustrations of the agentive role are taken from the archived proceedings of a graduate-level research course in distance education conducted in the MOODLE-powered course site where students went through designing and implementing research using both the quantitative and the qualitative methodologies. The hybrid agency between the teacher and the platform enables teaching conceptual and processual knowledge on research (or the “underpinning and procedures for knowledge construction through research”) and at the same time makes mentorship possible.

Teaching Research

Teaching graduate-level research is confounded by two difficulties: one is the practitioner background of students (Monahan 1994 as cited by Jones and Cleveland-Inners 2004) thus “their focus has likely been on the critique and consumption of research findings rather than on the underpinnings and procedures for knowledge construction through research” (Jones and Cleveland-Inners, 2004, p. 40); and the other is their acquisition of research knowledge and skills involves mentorship (Winston and Fields 2003, p. 167) requiring one-on-one interaction that puts “digital form of learning” (Breuer & Schreier 2007, par 39) into question. Can teaching research at a distance build research capability?

The Agency of Technology

In the context of distance education, communication is a mediated process, which means that there are agents other than the teacher participating in the conversation or in the teaching and learning process. Agents are those that make a difference in teaching and learning and they can be human and non-human. Teaching becomes a “hybrid association between humans and

nonhumans” that “enables people to do things that they could not do otherwise” (Cooren, 2004, p. 377). Agency “explains how one can act from a distance” or “ teleact” (Cooren 2006, p. 82).

In this paper, I shall advance the argument that technology is an agent (active), rather than a tool (passive) mediating and making a difference in teaching and learning research focusing on a web-based teaching platform.

Web-Based Teaching Platform as Agent in Teaching Research at a Distance

This section shall attempt to illustrate that with the agentic role of web-based teaching platform, graduate students can be taught the “underpinnings and procedures for knowledge construction through research” (Jones and Cleveland-Inners, 2004, p. 40) and that mentorship can be possible to enable the students to go through designing and implementing research using both the quantitative and the qualitative methodologies.

Illustrations of the agentic role are taken from the proceedings of a graduate-level research course in distance education conducted in the MOODLE-powered course site. The online course was a 12-week course composed of eight students whose background were in medicine, education, and local governance. The course was divided into six modules: Research and the Agenda for Research in Distance Education (DE), Various Perspectives and Epistemological Lenses, Quantitative Methodology, Qualitative Methodology, Research Ethics in DE, and Voices in the DE . The students were required to perform two activities per module: participation in a forum where the contents of journal articles (posted at the site) were discussed and the concepts of research derived; and submission of three assignments that building into a very simple research (the exercise gave the student an opportunity to go through the process of doing both quantitative and qualitative research in DE). The course was intended to develop students who can read research in DE as well as design and implement research on their own practice using appropriate perspective. Its ultimate goal is for students to be able to contribute to the body of knowledge on open learning and distance education by conducting research and evaluation studies.

The agentic role of the web-based teaching platform came in two forms: first, it enabled the teacher to interact with the students and thus focus students on important concepts and second, it enabled the teacher to structure the interaction and thus guide the students individually and collectively to learn skills required of the research process.

1) The platform enabled the teacher to interact with the students and thus focus students on important concepts.

Individually, the students were required to read research materials and then reflect on what they have read in terms of their context and interest. The asynchronous discussion afforded by the platform allowed the teacher to follow up what was read/reflected upon as well as fill what is lacking in what is gotten from the readings/reflection and focus students on important concepts.

For instance, in teaching the relationship between research and theory, through the asynchronous discussion the teacher was able to follow up what was reflected upon by the student in his own practical context and focus on the conceptual interest of the exercise as exemplified in the following exchange:

Re: 2- The Relationship Between Research and Theory
by [Student A](#) - Friday, 14 January 2011, 09:15 PM

I am currently interested and concerned with optimal interaction in DE modes of learning. Interaction is central to learning, and in medical education it carries more weight than

gold. Interacting and learning from and with an esteemed expert is highly priced; doctors seek training with renowned experts, attend workshops, lectures and conventions to learn and interact with experts. The wisdom, experience and distilled knowledge from years of practice cannot be captured in textbooks. Our own CME offerings are highly attended because of the face-to-face interaction with facilitator experts, and peers. My interest is to find out how interaction (content, teacher/facilitator, peers) can be optimized in DE delivery of medical education (or approximate face-to-face interaction). Corollary to this is an interest as to which technological devices/methods will be most appropriate.

Re: 2- The Relationship Between Research and Theory
by [Jean Saludadez](#) - Saturday, 15 January 2011, 02:04 PM

This is a mainstream research pursuit, Student A. Is there a particular theory in DE that you have discussed in your previous classes that can serve as theoretical scaffolding for this research?

2) The platform enabled the teacher to structure the interaction and thus guide the students individually and collectively to learn skills required of the research process.

The asynchronous nature of the forum afforded by the platform enabled the teacher to structure the interaction in such a way that students were guided individually through the steps that have to be learned in undertaking a study.

For instance, in teaching quantitative methodology, the teacher arranged the interaction in asynchronous forum as follows:

- [1- What you have read/observed/understood about quantitative methodology](#)
- [2- The Quantitative Research Question that you will be Asking](#)
- [3- The Hypothesis that You will be Testing](#)
- [4- The Data that You will be Collecting and Analyzing](#)
- [5- The Quantitative Research Report that You will be Writing](#)

The first forum would clarify the student's understanding of what quantitative methodology is as demonstrated in the following exchange:

1- What you have read/observed/understood about quantitative methodology
by [Jean Saludadez](#) - Monday, 7 February 2011, 04:45 PM

Let's use this thread to discuss what you have read/observed/understood about quantitative research by reading the Bernard et al and Abrami and Bernard articles.

Re: 1- What you have read/observed/understood about quantitative methodology
by [Student B](#) - Tuesday, 8 February 2011, 08:58 PM

Based from the reading, I think quantitative research in education is a little bit similar to experiments or investigations that we do in science. You have to find out what variables you want to investigate. The independent (X) variable is the variable that changes and you want to find out its effect on the dependent (Y) variable. You can also look at how the X and Y are variables are related. That is, if x increases, does y also increase. There are also control variables which you should make sure they don't change or are controlled so that it will not affect your study and that you will have a fair test. In educational research, how well the variables are controlled might pose a lot of challenges.

Analysing data requires some knowledge of statistics like finding out the mean, standard deviation, correlation, etc. Then you need to give meaning to the numbers obtained.

I still have to do more readings on how I will obtain quantitative data. The article describes tests (post test, pre test, etc.) but they will not be relevant to my study. I have to find a way to measure metacognitive skills.

Re: 1- What you have read/observed/understood about quantitative methodology
by [Jean Saludadez](#) - Wednesday, 9 February 2011, 10:22 AM

Very keen observation, Student B, on the similarity between quantitative research in education and experiments/investigations in science.

Just to provide some notes from the scholarly discourse in the social sciences, the application of the scientific method (used in natural and physical sciences) in studying social phenomena is called positivism. In itself, such approach is a valid form of knowing when the objective dimension of social reality is the focus of investigation.

On your particular study, I would assume that you are consulting/reviewing the research literature to be able to find an instrument for measuring metacognitive skills.

The succeeding forums were continuation of the conversation that had been started in the first forum as exemplified in the following exchange with Student B:

2- The Quantitative Research Question that you will be Asking
by [Jean Saludadez](#) - Monday, 7 February 2011, 04:47 PM

Let's use this thread to discuss the quantitative research question that you will be asking, in case you need guidance.

Re: 2- The Quantitative Research Question that you will be Asking
by [Student B](#) - Monday, 14 February 2011, 02:58 AM

In my quantitative study, I want to find out the level of metacognition among my classmates. My research question is: To what extent do graduate students of UPOU possess metacognitive abilities?

I will measure three components of metacognition. First is the Skill component which measures student's perception of their learning skills and thought processes. Then the Will component which measures student's perception to receptivity to learning new information. Lastly, the self-regulation component which measures how well the student manages the learning process.

I will use a questionnaire of about 3-4 questions per component based on the Learning and Study Strategies Inventory (LASSI). LASSI consists of 80 questions but for the purpose of my study (time constraints of my subjects), I will condense it into about 9-12 questions using the Likert scale for responses. I will then analyze the data for each metacognition component and develop a profile of metacognitive abilities of my subjects.

Please let me know what you think.

Re: 2- The Quantitative Research Question that you will be Asking
by [Jean Saludadez](#) - Monday, 14 February 2011, 09:34 AM

If you are interested in a descriptive study, the research question and the instruments are sufficient.

If you are interested in a theory-based research, then the research question should include the dependent variable, for instance, the level of online participation. So, the research question can be framed as how does metacognitive ability affect online participation, or what is the relationship between metacognitive ability and online participation.

Re: 2- The Quantitative Research Question that you will be Asking
by [Student B](#) - Monday, 14 February 2011, 10:08 AM

My original question was: How does metacognitive ability affect achievement in an online course? But then, I thought I would be asking grades that my classmates achieved in their courses and they might not like it. If I change my dependent variable to online participation, would I be able to ask some teachers to give me their assessment for the online participation of my classmates?

Re: 2- The Quantitative Research Question that you will be Asking
by [Jean Saludadez](#) - Monday, 14 February 2011, 02:33 PM

Grade is a measure of achievement in an online course, but there are other measures such as application of concepts learned (measures may vary, you can consult the literature), interactivity, or socialization may be another (again you can consult the literature). So, you can keep your original question, by measuring your dependent variable in terms of non-grade measures so data can be supplied by your classmates rather than by a teacher.

Further, the asynchronous nature of the forum enabled the teacher to guide the students collectively through the steps that have to be learned in undertaking a study as other students could read the conversation that the teacher was having with another student.

The following exchange that happened in an interim forum on the lessons learned from doing quantitative and qualitative mini studies demonstrates this point where another student, Student C, grasped the concept of plausibility as the teacher addressed Student's A concern for it:

Re: Quali, Quanti: Point of Reference
by [Student A](#) - Saturday, 12 March 2011, 02:12 PM

The question in my mind was, What is the interviewee trying to say, or tell me? What are her views on web video conferencing?!"

After doing the transcript, I reviewed it and highlighted all portions that I felt were trying to say something relevant. In this I was guided by my research question and my objective which read, The main objective is to identify learner's perceptions on features or attributes of web video conferencing via ooVoo that influence learner-learner interaction and learning in general and its application.."

Next, I grouped those that were similar in content or subject together, which in the process suggested certain themes. The themes as can be seen from the guide questions were influenced by my readings on learning and learner-learner interaction. For the categories, I tried to group the quotes of the interviewee as a learner's view of the themes. I just hope that my understanding of what the interview expressed which I translated into themes truly reflect those of the interviewee's.

Re: Quali, Quanti: Point of Reference
by [Jean Saludadez](#) - Monday, 14 March 2011, 01:46 PM

You have followed the basic procedure for doing theme analysis, Student A.. Your concern about your translation of the interview into themes truly reflecting those of the interviewee's is the concern that a qualitative researcher faces after the analysis-- to look at the plausibility of the meaning derived. (Plausibility is the yardstick of a good qualitative research, while validity is for quantitative research, as I must have mentioned elsewhere).

Plausibility refers to the credibility of an interpretation (the result of a qualitative research, the themes) assessed at various levels: empirical and theoretical.

Empirical plausibility is assessed by the participants of the study-- that is, a researcher's interpretation is plausible if it makes sense to the participants whose meaning the researcher is interested in.

Theoretical plausibility, meanwhile, is assessed by the researcher's scholarly community-- that is, a researcher's interpretation is plausible if its theoretical proposition(s) makes sense to the researcher's scholarly community.

If you wish, you may possibly do a "member checking," this is a technical term used in qualitative research to see/assess the study's plausibility-- by sending a copy of your report to your interviewee (whose identity you will have to protect as part of research ethics, a topic that we will discuss last in the course) and request her comments on your study and then share with the class your experience applying this procedure.

Re: Quali, Quanti: Point of Reference
by [Student C](#) - Monday, 14 March 2011, 10:11 PM

Thanks Prof. Jean for this explanation on plausibility.

This is a concern that have been lurking at the back of my mind considering that the interpretation of the researcher may tend to align with his/her educational background thereby creating a bias. This I believe should be avoided at all cost.

Conclusion

The hybrid agency between the teacher and the platform enables the teaching of conceptual and processual knowledge on research (or the “underpinning and procedures for knowledge construction through research”) and at the same time makes mentorship possible as all the students except one were able to complete two mini-studies, one employing quantitative methodology and the other qualitative methodology.

What the above experience illustrates is that it is possible to build research capability online but the teacher's interaction with students, individually and/or collectively, has to be in place, as Smith (2001 as cited by Winston and Fields 2003) puts it “the immediacy that is inherent with informal face-to-face interactions commonplace in a residential ...program must be replaced with scheduled interaction around progress in specific projects in an online environment” (p. 163). And such interaction could be afforded through the agency of a web-based teaching platform.

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Building Up a Synchronous Policy for Sustainable Development of Distance Education In Vietnam

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Abstract

In recent years, the form of distance education has been developed in the national education system of Vietnam. Although this mode of training has been newly formed, it has developed strongly with many guidelines, orientation and significant solutions. Establishment of policies of distance education in the national education system, development of educational strategies for each educational institution are great important tasks of the educational manager; they should be conducted in a proper and scientific process to ensure the feasibility of such policies. Synchronous policies for distance education should be thoroughly analyzed and built with 8 specific measures. This paper aims at presenting all the theoretical and practical factors to outline the synchronous policies for distance education in compatible with these measures. Furthermore, it also gives an adequate and methodical analysis of the policy-based recurrent cycle for a sustainable and effective implementation of distance education in Vietnam.

The background

The development process of national education system is affected by many factors: socio-politics, economy, culture, science and technology ... Depending on the viewpoints, targets of education development of each certain period, each country has its appropriate education policies. The education policies are regularly revised and supplemented to suit the needs of social development, in general and education, in particular. Establishment of policies in the national education system, mapping out educational strategies for each educational institution is the most important task of the educational managers and should be conducted in a proper and scientific process to ensure the feasibility of such policies.

In recent years, the national education system in Vietnam has developed the form of distance education. Although this type of training has been newly formed, it has developed strongly. This demonstrates that the mode of distance education is appropriate to the study needs of various classes of the population of Vietnam. The reality of distance education also shows that: policies must be made to ensure for this mode of training to develop sustainably.

For the above reasons, this science statement of desires to mention theoretical and practical issues to develop synchronous policies with the aim to develop the distance education in Vietnam.

1. Concepts and policy design process

1.1. The concept of policy

The term “policy” is used with the different integrated natures in science materials. In practice, managers must often participate directly or indirectly in the development, implementation and evaluation of policies. Those managers can, under different angles, have different views on this concept. However, can this concept be used in a uniform, we can understand the policy as follows:

- In a narrow meaning, the policy is understood as the specific expression of guidelines and measures of political or state organizations (government) in the fields of socio-politics.

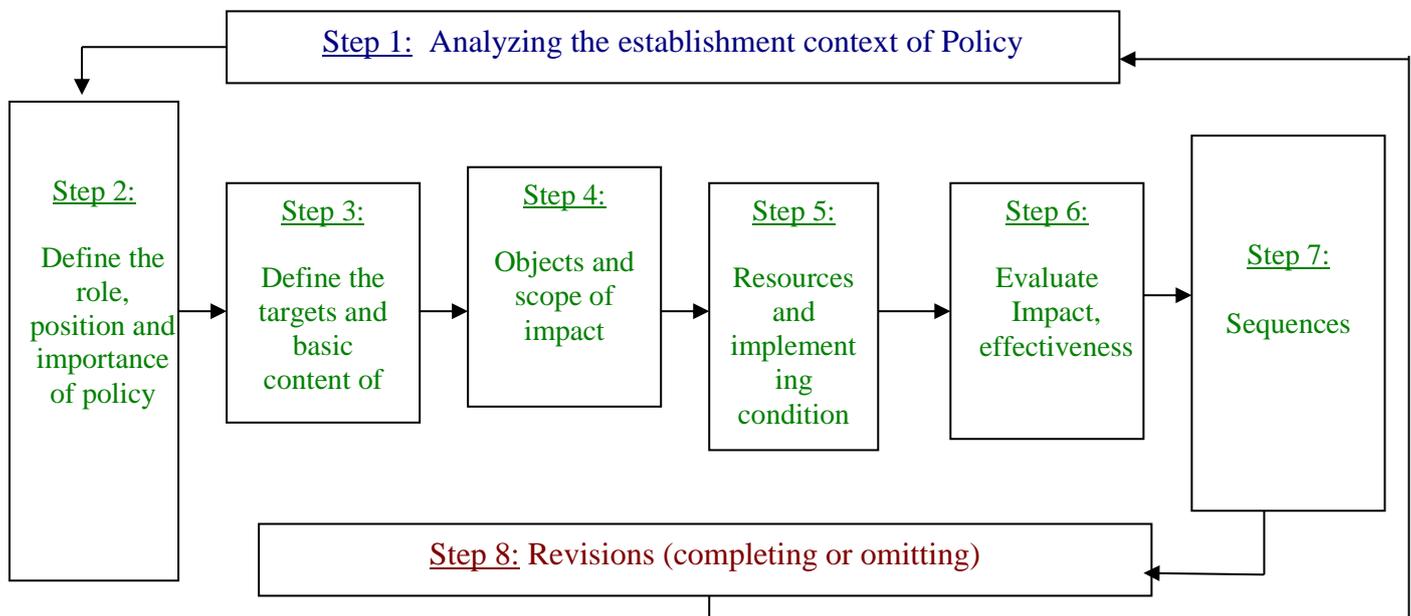
- In a broad meaning, the policy covers the major guidelines, plans or strategic directions of a country with the solutions representing the views, behaviour attitudes in the settlement process of issues.

The term “policy” broadly understood as above said is synonymous with the term "policy" used in the English documents.

1.2. Building policies

Building policies need to be based on scientific grounds, such as: Sociology, Education, Psychology, Legal basis, Philosophy, Management Science and International Cooperation...

It is important that when building policies, there needs to have systematic thinking to ensure the comprehensiveness, uniform and feasibility. In our research, building policies is conducted in many steps and can be expressed through the following diagram:



Policy making can be considered as a cycle, whereby policy making includes determining issues, setting goals, policy contents, determining impact scope, selecting resources, assessing and adjusting policies.

- **Step 1:** To make policies in accordance with actual conditions and feasible, policy makers need to grasp the context of policy-making. It is necessary to consider politics, economy, population, culture, society and social education status.

- **Step 2:** Clearly determining roles, positions and importance of a field as a basis for setting targets and contents when making policies.

- **Step 3:** Determining targets and basic contents of policies based on internal standards, required degree and demands of the issues. In many cases, when determining targets, it is necessary to apply some forecasting methods.

- **Step 4:** In fact, to put policies into reality, it is necessary to specify objects that mainly implement policies and impact scope of this policy nationwide.

- **Step 5:** It is necessary to determine resources and conditions to implement targets and content of the policy. Hence, implementing new policies are feasible.

- **Step 6:** Assessing impact and effectiveness of policies as a basis for approving the policies and suitable adjustments.

- **Step 7:** In the process of implementing policies, some issues that are not in compliance with determined goals will appear, creating variations and becoming barriers to development. Policy makers need to detect such consequences for timely policy adjustments.

- **Step 8:** Making policies with high flexibility and taking place with a circle moving forward. Adjustment step of (complete or cancel) policies will create a new cycle of making policy which is more and more complete and consistent with the actual context.

2. Buiding synchronous policy for stainable development of distance education in Vietnam

To implement the education development strategy in Vietnam, many education policies have been developed and implemented, including policy for distance education development. However, we understood that distance education in Vietnam has many guidelines and orientation, big solutions, synchronous policies for this mode of training should be thoroughly analyzed and building these policies should be conducted in a scientific process following the above-mentioned steps.

Step 1: Background of distance education policy

Currently, Vietnam is facing with big challenges, including:

- + Vietnam has to, in a short period of time, narrow the gap of production ranking and social life with other countries in the region and the world, as well.
- + Vietnam's integration with the international community is continuously growing.

In order to get the said started, development of high-quality human resources plays a vital role.

However, education - training in our country as well as in many other countries are facing with challenges and high pressures:

Firstly, the economic growth together with the increase in the role of science - technology creates great demands on the size and quality of human resources, far exceeding the previous periods.

Secondly, the demand for education, training and retraining for big population is increasing, day by day. Once the economy develops, living standards are improved, then the need to improve people's knowledge, to expand people's knowledge is increasing strongly.

The said-above pressures create problems, overload for the education system, especially higher and vocational education systems.

The increase in the state budget to expand investment, improve training capacity does not keep up with the explosion of the training need in society. On the other hand, the overload, the inequality of educational opportunities becomes deeper and deeper. This leads to the urgent need for democratization and socialization of education. This is a change in the quality of the education system, from an “elite” education only used for small population changing into an education for the masses, “the public education”. To make this change, a series of developed and developing countries in the world have applied the “open” education system, addressing the *distance education* as the key tasks.

Along with that trend and on the basis of analyzing the practical needs of education in our country, the State of Vietnam has adopted the policy: Diversification of training forms, creating opportunities for people to choose appropriately to meet their needs and conditions. Expand the concentrated and non-concentrated training forms, distance education, step by step modernize the forms of education and training.

That is the reason for the birth of policy on distance education in the system of policies on education and training (*This policy is represented by a series of decisions made by the Government, the Ministry of Education and Training since 1993; Decision No. 164/2005-QĐ TTG, dated 05/04/2005, of the Prime Minister approving the project of distance education in Vietnam in the period of 2005 - 2010; and be most concentrated in Decision No. 89/QĐ-TTg dated 09/01/2013 by Prime Minister on approving the Project "Building a learning society in the period of 2012 - 2020"*).

Step 2: Defining the role, position, meaning and importance of distance education.

1. Role, position of distance education in the national education system.

On the principle of orientation “*Everyone has fair chance to learn, regular learning, lifelong learning*”

- Through the general mode, it can be seen that:

The national education system consists of:

- *Regular education system.*
- *Non-regular education system (distance education system).*

The target of the two systems is: improving people's knowledge, training human resources, fostering talents for the country.

- Distance education is mainly based on the principle of self-study and is increasingly using the modern media - information technology play a very important role and come along with the traditional methods of education (face to face) in the national education system.

2. The importance of distance education.

Distance education conveys an important position as this method has advantages as follows:

- To implement the view of “diversification of education modes”, creating learning opportunities for the many people. This makes the training process become self-training process.
- To be suitable for all ages, solving the problem is that learners do not have to leave their current job in a long period.

- To make it easy for learners to actively plan their study schedule and sequence of subjects in the training program (because of the distance is mainly based on credits).
- Distance education thorough applies achievements of information technology, audio-visual techniques.
- To reduce training costs remarkably.
- Many training courses can be organized at the same time and the advantage of good teachers can be taken.

Step 3: The Objective and basic content of distance education policy

1. The object of the policy:

This policy shall achieve the following objectives:

a/ Creating opportunities and favorable conditions for learners.

Numerous workers can have opportunities to study and improve their skills, capacity, they are trained and retrained, frequently trained on professional knowledge, professional skills, contributing to improving the people's knowledge, human resources for the period of industrialization and modernization.

b/ Improving the quality of distance education through measures:

Apply new training technology – online training.

- Improving technology of examination, testing, evaluation, ensuring the objectivity and fairness in examinations and degrees and certificates grating.
- Strengthening the state management activities of the distance education in institutions and improve the investment efficiency of distance education.

2. The basic content of the policy

- To promote research on technology, conditions to assure the quality, policies and mechanisms on the distance education.
- To strengthen facilities and technology for the distance education.
- To invest in composing and producing learning materials for a distance education in several fields and training sectors that have a great need.
- To establish national network and coordinating activities of distance education.
- To train and fostering professional services for faculty and administrators continuation education.
- To develop some distance education programs with practical contents to meet the learning needs of the people to improve their cultural knowledge, update educational knowledge on television, channels of Vietnam's television and on the radio, Voice of Vietnam.
- To focus on developing some programs of distance education in some areas in great demand: standardizing teaching staff, economic science and business administration, Socio-science and Humanities, foreign languages and informatics ...

Step 4: Objects and Scope of impact.

The objects and scope of impact of distance education policy can be mentioned

1. Ministry of Education and Training is a state management body for education system, in general and education, in particular. The Ministry is responsible for developing and

submitting projects of distance education to the Government for reviewing and approval. Also, the ministry shall coordinate activities of ministries, sectors and localities with the National Center for distance education, universities to implement specific programs on distance education.

2. The ministries, industries, as well as social organizations are responsible for creating proper conditions for distance education development.

3. Media agencies: the Central and local Television Stations and the Voice of Vietnam, Ministry of Post-Telecommunication, Digital data communication and transmission offices ... are responsible for supporting in techniques, technology and transmitting distance education programs.

4. Provincial and municipal People's committees are responsible for state management of distance education in the areas as assigned by the Government.

5. The Departments of Education and Training, Centers for distance education shall participate in organizing, managing learners and support the training process.

Step 5: Resources and conditions for implementation

1. Resources

Financial resources are an important factor to ensure quality training. For the distance education, financial resources include:

a / *From the state budget*, mainly used to increase the potential of facilities for distance education such as investment in units which print learning materials, multimedia classrooms, modern-equipped studio; The two-way television online classrooms.

b / *From school fees and other revenue sources* used as regular expenditure for distance education.

2. Conditions for implementing policies

Distance education policy is synchronously implemented only basing on the assurance of the following conditions:

a / *To consolidate and develop the network of distance education*

- To establish the national and regional centers for distance education (Northern, Southern and Central regions). These institutions shall become national centres of multi-level, multi-sector and multi-field with advanced distance education technology aimed at developing the scale of distance education on the basis of quality assurance.

- To consolidate the existing distance education institutions at the universities and encourage universities to invest in distance education.

b / *To strengthen the facilities – techniques and school materials for distance education*

Facilities – techniques and learning materials for distance education in Vietnam develop in the direction: taking advantage of advance in science - modern information technology, in line with socio-economic conditions and tending to catch up with regional countries in terms of distance education.

c / *To Invest in training staff*

There needs to have proper plan and investment in training and fostering professional staff, management staff of distance education. This team must be expertise enough to be able to design programs, compile study materials, evaluate, and master new technologies ...

d / To promote regular investment in distance education activities

e / To promote international cooperation on distance education

Encouraging and expanding international cooperation in the field of distance education with the aim to research, apply technologies that are suitable for Vietnam's conditions and exploit resources from the international cooperation to develop the distance education.

Step 6: Evaluate the impact and efficiency

Once policy is implemented synchronously, distance education will achieve its effective objectives and benefits. Specifically:

- Developing a wide distance education network from central to local to meet the various learning needs of different areas, regions nationwide.
- Developing facilities for development, at the same time utilizes and promotes the existing infrastructure to serve for distance education.
- Developing programs as well as contents of quality distance education materials of all types for some industries that are in great demand, in accordance with various objects, contributing to innovative methods of teaching and learning.
- Training a team of administrators, teachers, technicians with good quality in profession and competency to ensure for the distance education development in the next years.
- Approaching and applying modern educational technologies, contributing to improving the quality and effectiveness of training.
- Contributing to building an open education system, lifelong learning, building a society of learning.

Step7: The arising consequences

In the distance education development process, there needs to foresee the consequences that may arise such as:

1. Appear strange distance education models

- Distance education is a clear concept, but the reality has appeared activities that aren't of distance education type, they are misunderstood as distance education. Referring to experiences of distance education of many countries over the world, there is a need to anticipate the deformed distance education modes. The followings are some examples:
 - Much different from the concentrated training, in the distance education mode, mostly training process is carried-out out of sight, not face to face – in distance. However, some classes that are carried-out in the form of concentrated training in the local areas, far from university are also misunderstand as the distance training classrooms.
 - Distance education has to ensure the two-way information between teachers and students in many forms. So the printing materials for learners or educational television programs that are not associated with any two-way information forms that are just the distance education components, but not the proper distance education.
 - In some places, for some reasons, units of text-books of concentrated (regular) training form are added with some extra training sessions by the teacher directly. This also is not true with “distance education” term. Because the distance education requires that materials are specially designed for self-study learners along with the support of the audio-visual technical equipment as well as the information technology.

2. Only catching the advantages of distance education, but not the disadvantages of distance education to overcome.

Distance education has many advantages, but also has its disadvantages. It is necessary to understand such disadvantages then map out proper measures. The advantages in distance education are:

- Distance education requires learners to have a strong determination and have self-study ability.
- The initial investment is big (although training cost/ student decreases). That may discourage educational investors.
- Process of inspection, assessment of learning results requires the objectiveness and accuracy for a large number of students. Therefore, the objective testing forms are used.
- Distance education can be implemented in many places, many courses at the same time, distance education institutions are required to improve their organization level, operational skills; officials must be dynamic, flexible. Professional weakness affects considerably the distance education development in both scale and quality of training.

Step 8: Necessary adjustments for distance education development policy

It is necessary to foresee the necessary adjustments and revisions for distance education development policy when encounter the following situations:

- Unbalance between the scale development and quality education.

Distance education is effective method for training and education for a large number of people. But there need to grasp the principle thoroughly, any kind of education (regular or non-regular, direct or indirect) to consider the quality be the first.

- Therefore, it is necessary to inspect and supervise the distance education activity of educational institutions. In case of following a phenomenon of very large scale, but not sufficient conditions to ensure the quality, there needs to adjust the behaviour of that educational institutions to ensure harmony between educational scale and quality.

- Inspect and adjust the distance education network to ensure the harmony in regions, areas throughout the country so as to make the distance education really create opportunities for many population classes in many different regions, special attention should be paid to mountainous and remote areas, islands.
- Science of communication, information technology (IT) has developed in a very rapid way. It is required to constantly monitor and update the achievements of these sectors to adjust for selection of technologies being appropriate to each stage of development.
- Adjust mechanisms and policy on distance education development encouragement in pace with national education development system in the socio-economic development of the country.

Conclusion

Policy on distance education development in both scale and quality will help create great effects on both economy and society. Nowadays, in specific conditions, this educational policy is considered effective measures to implement the guideline of the Ministry of Education & Training in diversifying professions and forms of training, implementing the

educational socialization. There needs an proper and sufficient analysis of distance education development policy process based on literature and practical basis plays an important role in implementing this policy synchronously in order to develop sustainably and effectively the education and distance training in Vietnam's education system.

For Hanoi Open University, when implementing sustainable development strategies of distance learning, it has **oriented to develop following activities:**

1. Developing its models of distance learning (tradition and online), focusing on the development of distance learning with E-learning, Mobile learning technologies.
2. Diversifying learning levels in distance learning to meet demands and learning objects: Vocational schools, Colleges, Universities, Master's degree.
3. Opening distance learning for more branches of knowledge in accordance with social requirements.
4. Developing learning materials, especially electronic learning materials.
5. Improving training programs, training technologies associated requirements of socio-economic system.
6. Standalize quality ensurance criteria for distance learning.
7. Expanding cooperation with universities in the region and around the world in the field of Open and Distance learning.

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A Distance Education System for Students of Food and Nutrition Diploma Program in the Field of Home Economics



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Abstract

This study aims to (1) study the current situation and guidelines of distance education in vocational colleges, and (2) develop a distance education system for diploma students of Food and Nutrition Program in the field of Home Economics.

Research process was as follows: (1) Phase 1 was the study of current situation and guidelines of distance education in vocational colleges. The population was 116 administrators and 186 teachers of Food and Nutrition Program using an assessment questionnaire with the reliability coefficient of 0.95. (2) Phase 2 was the development of a distance education system for diploma students of Food and Nutrition Program. The sample of experts was selected by purposive sampling. Nine experts participated in focus group discussion and six experts assessed the system by using an evaluation form with the reliability coefficient of 0.86. Data were analyzed by using percentage, arithmetic mean, standard deviation and content analysis.

The findings showed that: (1) Vocational colleges did not use distance education systems. However, they had readiness in personnel and resources. Administrators and teachers were ready to introduce distance education at 68.75 % and 97.44 % respectively. They agreed that the components and process of four distance education systems proposed were suitable to be used as guidelines for the development of distance education systems in Food and Nutrition Program. (2) Regarding the distance education system for diploma students of Food and Nutrition Program developed, the experts agreed that it was at the most appropriate level.

Keywords: Distance Education System, Food and Nutrition Program

Introduction

Thai vocational education in the future must focus on the provision of vocational education for large number of people. It is therefore necessary to find out about the instructional methods and curriculum which are relevant to the learning forms of youths. They must also meet the requirement of the learners who are outside school system or are working and want to change work or retraining due to the technological changes. The

instructional system responding to this requirement is distance learning system. Since Thailand is at global top rank with income from tourism and together with the policy of the government to promote Thai kitchen as a global kitchen, the involved personnel needs to be developed with knowledge and skills in the area of food sufficient for the services. For the situation that a lot of people who are in the area of food services want to further their education to improve their skills and also increase their potentials, the main problem occurring is that they do not have time to attend the classes or they live far from the educational institutes and cannot travel to the classes comfortably. This problem has caused the lack of opportunity in obtaining education or searching for knowledge. Even though the policy of Office of the Vocational Education Commission (OVEC) is to promote the Food and Nutrition Program and other relevant ones more widely to meet the needs of learners as well as the labor market, there have been many limitations. They are, for example, the limitations about number of learners to accept, fixed structures that are difficult for management, and restricted learning environment only in classes. Since the learning & teaching of Food and Nutrition emphasizes on work practice and employability, it is therefore organized to develop skills, ability, understanding, positive attitude toward occupations, and good habits which are all necessary for work. The researcher was then interested in developing a distance education system for diploma students of Food and Nutrition Program efficient to apply into real practice for the management of distance education of Food and Nutrition Program in colleges. This has been carried out parallel to the educational management of normal system in order to expand the offer of Food and Nutrition Program thoroughly and widely for the target group.

Research Objectives

1. To study the current situation and guidelines of distance education in vocational colleges, and
2. To develop a distance education system for diploma students of Food and Nutrition Program in Home Economics.

Conceptual Framework

The distance education system for diploma students of Food and Nutrition Program was developed from the study of needs and situation of Food and Nutrition Program in colleges. Documents about distance learning, vocational education, and educational management system were reviewed. The conceptual framework about distance education system was established from the opinions of experts in focus group discussion. A model of distance education system for diploma students of Food and Nutrition Program was then developed according to the educational process including system analysis, system synthesis, establishment of a model, arrangement of focus group discussion for experts' opinions, adjustment of the model, and experts' evaluation for appropriateness of the model.

Methodology

The operational plan of research was carried out in 2 phases:

Phase 1 Studied information about the situation and guidelines of educational management in colleges and the information was used to form questions for the opinions of administrators and teachers about 4 distance education systems: (1) Borje Holmber's distance education system, (2) Michael G. Moore and Greg Kearsley's distance education system, (3) distance education system of Sokhothai Thammathirat University, and (4) borderless educational system of Suranaree University of Technology. There are 2 steps in Phase 1.

Step 1 Studied the information The concepts and theories about distance education management, distance education system, vocational education, educational management, production of e-learning packages, instructional management system, and Food and Nutrition diploma curriculum were investigated for the study of situation and guidelines of distance education management.

Step 2 Studied the current situation and guidelines of distance education management The situation of college about existing resources, policy about distance learning of college, readiness of teachers and college in bringing distance education system into practice, Food and Nutrition teachers, and opinions of administrators and teachers toward 4 distance education systems were investigated.

2.1 Population and sample The sample was the population of 2 groups.

2.1.1 Group of 116 administrators of colleges offering the program

2.1.2 Group of 186 teachers of the Program

2.2 Research instruments There were 2 questionnaires: (1) a questionnaire for administrators; and (2) a questionnaire for Food and Nutrition teachers. The questionnaires were developed according to background information of colleges, opinions of administrators and teachers toward the readiness in bringing the distance education system into practice, and opinions of administrators and teachers toward 4 distance education systems. Their content coverage and index of item-objective congruence (IOC) were then tested by experts. The questionnaires were revised according to suggestions of experts. The questions with means between 0.5-1.00 were selected for data collection.

2.3 Data collection Data were collected by questionnaires sent to administrators and teachers.

2.3.1 The 116 copies of questionnaire were sent to administrators and 96 of them (82.76%) were returned.

2.3.2 The 186 copies of questionnaire were sent to teachers and 156 of them (83.73%) were returned.

2.4 Data analysis The data were analyzed by percentages, mean (μ) and standard deviation (σ).

The results of Phase 1 revealed that colleges did not have an efficient distance education system. However, they had readiness in personnel, materials, hardware, laboratories and computer networks. Administrators had policy to support distance education at 68.75 % while teachers were ready to bring the system into practice in their responsible courses at 97.44 %. They both agreed that the 4 distance education systems could be used as guidelines for distance education management of Food and Nutrition Program in colleges at the very appropriate level.

Phase 2 Developed a conceptual framework for distance education system, and a distance education system for Food and Nutrition diploma students under 2 steps.

Step 1 Developed a conceptual framework for distance education system A conceptual framework for distance education system was developed by analyzing data from the study of situation and guidelines of distance education management in colleges. The literature related to distance education system was reviewed. The opinions of experts in focus group discussion were analyzed to use as guidelines for the development of distance education system for Food and Nutrition diploma students.

1.1 Sample The sample used in focus group discussion were 12 experts selected by using purposive sampling and from experts with at least 10 years of experience in areas of distance education, vocational education, food and nutrition, educational technology, and measurement and evaluation.

1.2 Research instrument The tool was a questionnaire with questions asking experts in focus group discussion. The questions were designed according to the framework obtained from results of Phase 1. Its content coverage and IOC were tested by experts. The questionnaire was revised according to the suggestions of experts. The questions with means between 0.5-1.00 were selected for data collection.

1.3 Data collection The data were collected from focus group discussion.

1.4 Data analysis The data were analyzed by content analysis.

Step 2 Developed a distance education system The guidelines obtained from the opinions of experts were used to develop a distance education system for Food and Nutrition diploma students according to method of educational system management. The system was used to ask for opinions of the same experts through focus group discussion and revised before sending to experts for evaluation.

2.1 Sample The sample was divided into 2 groups.

2.1.1 The sample for focus group discussion was 12 experts of the same group.

2.1.2 The sample for system evaluation was 5 experts selected by purposive sampling and from experts with at least 10 years of experience in areas of distance education, vocational education, food and nutrition, educational technology, and measurement and evaluation.

2.2 Developed a model of distance education system The development of distance education system for Food and Nutrition diploma students was carried out using the process of educational system management in 4 steps as follows.

Step 1 Analyzed the system using the conceptual framework obtained from opinions of experts in focus group discussion. The results were used to determine the components and steps of distance education system for Food and Nutrition diploma students.

Step 2 Synthesized the system by using components gained from the analysis in Step 1 to rearrange into appropriate orders based on main components of system: Input, Process, Output and Feedback.

Step 3 Constructed a model of distance education system according to the conceptual model. Opinions of the same experts toward the distance education system were investigated in focus group discussion. The model was then adjusted.

Step 4 Tested the efficiency of and adjusted the system. The revised system was evaluated by experts for its appropriateness in areas of Context, Input, Process, and Product; and improved according to the results of evaluation.

2.3 Research Instruments The instruments were a questionnaire and an evaluation form. (1) The questionnaire about distance education system for diploma students of Food and Nutrition Program in Home Economics asking for the opinions of experts in focus group discussion. (2) The evaluation form was used to evaluate the system developed according to the framework based on decision making and CIPP Model of Stufflebeam in 4 areas of (1) Context, (2) Input, 3) Process, and (4) Product. The evaluation form was tested by experts for its content coverage and IOC. The questions were revised according to the

suggestions of experts. The questions with means between 0.5-1.00 were selected for evaluating the system.

2.4 Data collection The data were collected from focus group discussion and from the evaluation of 5 experts about the distance education system for Food and Nutrition diploma students. The 5 copies of evaluation form (100%) were all returned.

2.5 Data analysis The data obtained from focus group discussion were analyzed by content analysis. The data gained from the evaluation form were analyzed by mean (\bar{X}) and standard deviation (S.D.).

The results of Phase 2 revealed that a model of distance education system for students of Food and Nutrition Program was obtained. The system comprised 5 sub-systems: (1) sub-system to investigate the needs of target group of distance education; (2) sub-system to develop courses; (3) sub-system to produce e-learning packages; (4) sub-system of distance learning; and (5) sub-system to evaluate the distance education system. Regarding the evaluation of system, experts agreed that it was at the most appropriate level to use with educational management in colleges. The conceptual model is shown in Figure 1.

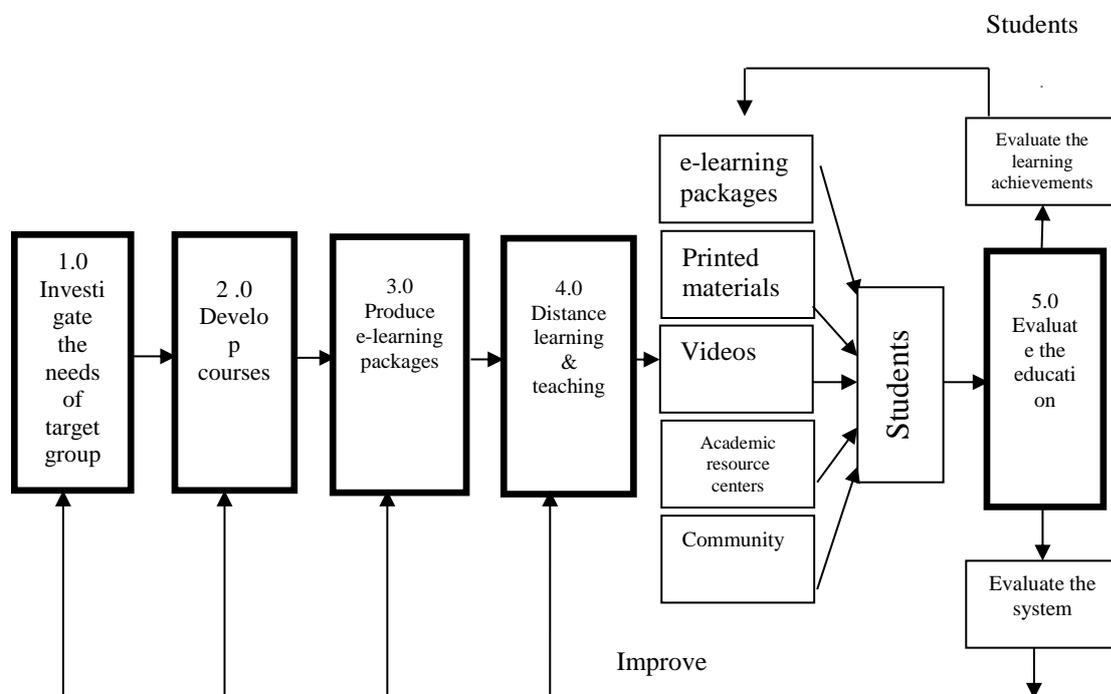


Figure 1 The model of distance education system for vocational diploma students of Food and Nutrition Program in the field of Home Economics VEC-PLAN

Summary of Research

The results of Phase 1 about the study of situation and guidelines of distance education management in vocational colleges revealed that the colleges did not have an efficient distance education system for its management of distance education. However, they had readiness in personnel and resources. Administrators had policy to support distance education management while teachers were ready to bring the system into practice. They both agreed that Borje Holmber's distance education system, Michael G. Moore and Greg Kearsley's distance education system, the distance education system of Sokhothai Thammathirat University, and borderless educational system of Suranaree University of Technology were appropriate to use as guidelines for distance education management in

colleges at the very appropriate level. The results of Phase 2 revealed that a model of distance education system for Food and Nutrition diploma students was obtained. Regarding the evaluation of system, experts agreed that it was at the most appropriate level for educational management in colleges.

Discussion

From the evaluation of distance education system for Food and Nutrition diploma students, there were few issues for discussion as follows.

Regarding the coverage in areas of Context, Input, Process and Product of distance education system for Food and Nutrition diploma students, the results of evaluation revealed that the sampled experts agreed that the system was at the most appropriate level. This might be that the components and steps of system were mutually relevant. The system was also developed according to the guidelines obtained from opinions of administrators, teachers and experts in related areas.

Recommendations

To bring the distance education system into practice in college, some operations should be carried out as follows.

1. The management of organization College needs to adjust its organizational structure to serve new tasks due to the implementation of distance education system for Food and Nutrition diploma students. It should adjust in 2 aspects: establishment of new units and structural change of existing units.

1.1 For the establishment of new units, (1) the administration structure of college should be adjusted. The structure comprises the divisions of Academic Affairs and IT for Education, Administration, Planning and Development, and Student Affairs. (2) For the involvement with system of distance learning materials, Division of Academic Affairs and IT for Education should be assigned to monitor the operations of distance learning material production and services including sections of Educational Technology, Computers, Printing, Documentation and Information. Moreover, the administrative committee for distance education system should be appointed.

1.2 The structural change of existing units is the structural adjustment of units within college. The structures of some units need to be adjusted to reduce redundant works and make them more appropriate. The structures are adjusted upon their functions and unit names are changed relatively to the functions. These adjustments make units clearer with appropriate size; and will promote more efficient work practice.

2. The provision of infrastructure of media and telecommunication

2.1 The telecommunication network of college is established with 2 objectives: (1) to communicate about administration within college; and (2) to communicate about distance learning & teaching between college and students.

2.2 The communication system of college consists of (1) land two-way communication system, and (2) one-way communication system for radio broadcasting. Land dual communication system is the communication system used for rental service of Telephone Organization of Thailand or Communication Authority of Thailand. One-way communication system for radio and television broadcasting has utilized the existing network, namely R-radio, of OVEC.

2.3 One-way communication through satellite is the network used to broadcast interactive radios and televisions for learning and teaching, academic services and public relations. This might be carried out under cooperation with Distance Learning Foundation.

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**The Use of Electronic Media in Studying
Cost Accounting and Managerial Accounting Course
Through the Distance Learning System of
The School of Management Science,
Sukhothai Thammathirat Open University**



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Abstract

This research is aimed at investigating the usefulness and effectiveness of electronic media to supplement regular media of instruction in studying for the Cost Accounting and Managerial Accounting course through the distance learning system at Sukhothai Thammathirat University (STOU). The sample of this study consists of 337 students who participated in the study by answering a questionnaire after a trial usage of electronic media designed and developed by the author. They were undergraduate students majoring in accounting in the School of Management Science. Data collection process took place during the mandatory professional-experience-in-accounting workshop routinely conducted during the first and second semester of the 2010 academic year. The statistics used in data analysis include the calculation of percentage, mean, and standard deviation. The result of the study showed that students were not well-prepared in terms of appropriate background to handle the difficult nature of subject matters. Most did not attend the supplemental classes, but opted for the course sound CD since time is the overriding factor for such decision. As far as gaining an understanding through the available electronic media for the course, students indicated that the content appropriateness and media design were at the high level. Moreover, they also indicated that the lessons contained in the electronic media were concise, easy to understand, and helpful in facilitating the reading of the textbook. However, they suggested that the materials covered in the electronic media should be improved in terms of the computational aspect of the materials and an increase in examples and exercises. The technical aspect of the design of such electronic media should also be improved in order to enhance the effectiveness of the presentation of the materials.

Keywords: Electronic course, Education media, Cost accounting, Managerial accounting

1. Introduction

Lifelong learning through the use of distance learning paradigm has been the educational philosophy of Sukhothai Thammathirat Open University since its inception over thirty years ago. Millions of Thais are afforded this educational opportunity without the confine of the traditional classroom setting. Students are able to tailor their course of study according to their limitations and available resources in terms of time and geographical locations. Studying is carried out on the students' convenient time and place through the use of exceptionally-well prepared course materials in various technical formats to ensure success at all levels of participation. This distance learning paradigm allows the university to carry out its mission of providing equal opportunity access to higher education to Thai population, local and abroad, which can be translated into economic stability in people's lives and sustainable development of the country as a whole.

In the book entitled "Distance Education," Dr. Wijitara Srisa-an (1986) described the importance of lifelong learning as one of life's necessities in modern times. And, it is the society responsibility to respond to this ever-increasing demand by people in all walks of life regardless of age, gender, and economic well-being. This leads to a new idea of 'open education' through the concept of distance education which emphasizes the independent learning process by learners (Anderson, 2003). This learning process relies heavily on an effective use of various kinds of instructional media and information/communications technology infrastructure (e.g., post system, radio and television, the Internet, and supplemental instruction, to name a few).

The birth of Sukhothai Thammathirat Open University in 1978 had ushered in the new era of a true distance education in Thailand. The traditional classroom setting was replaced with a new distance learning system. Each undergraduate curriculum comprises several course units. Each course unit carries an equivalent of at least six credit hours of the regular two-semester system in the traditional face-to-face setting (STOU, 1985). A single unit is further subdivided into 15 subunits, each requiring approximately 12 hours of study time per week. The university also adopted the two-semester system, and each semester spans a 15-week duration. Every student must enroll in at least one, but no more than three course units within a semester. After enrolling in a particular course unit, the primary mode of learning involves an independent study of written course materials (course notes and workbooks) received through regular snail mail by the student.

Since then, students of Sukhothai Thammathirat Open University have enjoyed a dramatic increase in the number of different educational media, both primary and supplemental. In addition to the course notes and workbooks, students have convenient access to lessons through radio and television broadcast and on-demand Internet service through the university website (www.stou.ac.th). Supplemental instruction sessions are also scheduled at remote geographical locations throughout the country. Depending on the nature of subject matter for a certain course unit, a professional-experience training workshop may also be required.

Recently, due to the technological advance in information and communications infrastructure, the university has poised to become the leader in an e-Learning education system, both online and offline. An integral part of the e-Learning system is the production of an electronic course distributed in the form of multimedia compact disc. This multimedia CD contains interactive computer lessons used in reinforcing key concepts found in the course notes and workbooks.

2. Problem Statement and Its Significance

The primary focus of this research is on the use of electronic media as a supplement in the studying of Cost Accounting and Managerial Accounting course through the distance learning system of the School of Management Science, Sukhothai Thammathirat Open University. This course combines selected topics from a cost accounting course and a managerial accounting course into a single cohesive course. It is a required course unit for all accounting majors in the School of Management Science. Due to the difficult nature of the subject, which emphasizes cost calculations and their impact on managerial decision-making process, students are expected to have a working knowledge of basic accounting principles and college-level mathematics. Most students fail the course the first time, and some are required to repeat multiple times. Thus, it is imperative that a thorough investigation concerning the administration of this course unit be carried out to help improve students' success rate. Of particular interest are the course prerequisites and the use of supplemental electronic media in addition to the regular media of instruction, i.e., course notes, workbooks, supplemental instruction sessions, etc. Specifically, we have developed an electronic version of the course materials in the forms of multimedia compact discs (CDs) and distributed them to students for a trial usage during the first and second semester of 2010 academic year. At the end of each semester, data was collected regarding such usage. This paper reports the findings of this research designed to address specific objectives stated below:

2.1 To study students' demographics pertaining to the problems and obstacles in studying Cost Accounting and Managerial Accounting;

2.2 To use students' evaluation of learning to assess the usefulness and effectiveness on the use of electronic media in such a course; and

2.3 To gauge students' impression on the design and content appropriateness of the such media.

3. Research Methods

Following Potisuk (2001), Doungnate, et.al. (2002), Jaroenpuntaruk (2006), and Palawatvichai (2010), this section describes the research methods in conducting the investigation of the use of electronic media in studying cost accounting and managerial accounting course at Sukhothai Thammathirat Open University. The research is descriptive in nature.

3.1 Population and sample

The population of this study comprised a total of 937 undergraduate students majoring in accounting in the School of Management Science, Sukhothai Thammathirat Open University (STOU). All of the students enrolled in the cost accounting and managerial accounting course during the first and second semester of the 2010 academic year. These students voluntarily participated in the research while attending a five-day mandatory professional-experience-in-accounting workshop routinely conducted as part of the requirement for successful completion of the course. The workshop is an integral part of the course, which aims at providing hands-on experience to students.

Of those 937 students who were asked to participate, 350 students responded. This group constituted a random sample of the population of the study according to the ready-to-use YAMANE table of sample size constructed at 95% confident interval. The number of 350 was well above the required sample size of 286 per a population size of 1000 as suggested in order for subsequent data analysis to be statistically significant.

3.2 Data collection

The subjects described above were asked to voluntarily answer a questionnaire after a trial usage of several interactive electronic lessons designed for the cost accounting and managerial accounting course. The lessons were installed on the computers at the computer laboratory, Chalermprakait building located on the main campus of STOU. The lessons were appropriately designed by following the guidelines prescribed by Teronthanakul, et.al. (2000) and with the help of the instructional design team of STOU. The detailed description of such design was omitted for the sake of brevity. Interested readers can consult Yenbamrung, et.al. (2005) and Jaroenpuntaruk, et.al. (2007).

The questionnaire contained questions directly related to all of the issues regarding the use of those electronic lessons. It was designed in accordance with the aforementioned three research objectives. Prior to its actual usage, the questionnaire was tested on a different group of students during a similar workshop held during 16 – 20 August 2010 resulting in a few minor improvements incorporated.

The data collection process was carried out over the course of the 2010 academic year during four routine professional-experience workshops:

- 1) 3 – 7 November 2010;
- 2) 19 – 23 January 2011;
- 3) 29 January – 2 February 2011; and
- 4) 27 April – 1 May 2011.

A total of 350 questionnaires were returned by students. All returned questionnaires were first checked and verified for completeness and then processed by computer. Of those 350 returned questionnaires, only 337 were retained for subsequent data analysis.

3.3 Data analysis

The statistics used in the data analysis process include the calculation of percentage, mean, and standard deviation. Five levels of significance were used in interpreting this data (i.e., lowest, low, medium, high, and highest). The following definition is used in qualitative level mapping.

Mean between 5.00 - 4.50	-	Highest level
Mean between 4.49 - 3.50	-	High level
Mean between 3.49 - 2.50	-	Medium level
Mean between 2.49 - 1.50	-	Low level
Mean between 1.49 - lower and Standard deviation < 1.5	-	Lowest level

In addition, open-ended questions were also elicited and used in the data interpretation process described in the next section.

4. Results and Discussion

For the students' demographics, it is found that the majority of students (significance level five) were females whose ages ranged from 21 to 25 years and currently working as bookkeepers in the Bangkok metropolitan area. Most of them earned an associate degree or equivalence before enrolling at STOU in the 2008 academic year. In addition, most were taking the course for the first time. Table 1 shows the actual percentage for each category.

It is noteworthy based on educational background that the majority of students desire to advance their level of education by pursuing a bachelor's degree in the field of accounting since most are presently bookkeepers. This desire is probably indicative of the fact that most students realize the importance of higher education and choose to take advantage of an

opportunity afforded to them by STOU, which otherwise does not exist before in the closed education system. As far as gender, the majority of students were female, which is stereotypical of a bookkeeping profession in Thailand.

Table 1 Students' demographics

Category	# Samples	Percentage
gender: female	302	89.6
age: 21 - 25 years	106	31.5
Occupation: bookkeepers	122	36.2
Education: associate degree or equivalence	180	53.4
Working area: Bangkok	88	26.1
Degree start date: 2008	116	34.4
First time enrollment	264	78.3

For appropriate prerequisites, the majority of students had background knowledge related to Fundamentals of accounting at the high level, whereas the knowledge of basic mathematics, intermediate accounting, cost accounting, and managerial accounting was at the medium level. Table 2 below shows the actual statistical data for each category. The result shows that students were not well-prepared in terms of appropriate background to handle the difficult nature of subject matter and the independent learning style they are not accustomed to once enroll in the program.

Table 2 Appropriate prerequisites for the course

Courses	# Samples	Percentage	Mean level	S.D.
Fundamentals of accounting	162	48.1	3.53	0.725
Intermediate accounting	251	74.5	3.05	0.577
Cost accounting	228	67.7	2.93	0.629
Managerial accounting	237	70.3	3.03	0.602
Mathematics	201	59.6	3.15	0.769

While the understanding of subject matter was gained by the majority of students through the textbook, the exercise book, and the accounting problem book at the high level, and through the use of CD at the medium level, the knowledge gained through attending supplemental classes was low. Table 3 below shows the actual statistical data for each type of education media. The results are seen to be consistent with the goal of utilizing textbook and course notes as the primary mode of learning.

Table 3 Understanding of subject matter from education media

Items	# Samples	Percentage	Mean Level	S.D.
Text Book	194	57.6	3.91	0.700
Exercise Book and Problem Book	188	55.8	3.87	0.701
CD for the course	120	35.6	2.66	1.389
Supplemental Instruction Sessions	68	20.2	1.9	1.483

Regarding the methods by which students used to study for the cost accounting and managerial accounting course, the findings indicate that they always studied the textbook, did pre-test, post-test, and end-of-chapter exercises and the accounting problem book. Most did not attend the supplemental classes, but opted for the sound CD for the course on many occasions since time is the overriding factor for such decision. Table 4 below shows the actual statistical data for each type of education media. The data suggests that the content of the sound CD ought to be improved and its usage encouraged. Although the supplemental instruction sessions were not popularly attended, they should still be offered as an alternative for those interested and appreciate its usefulness.

Table 4 Frequency of usage of different types of education media

Items	# samples	Percentage	Frequency
Text Book	195	57.9	always
Exercise Book and Accounting Problem Book	237	70.3	always
CD for the course	164	48.7	occasionally
Supplemental Instruction Sessions	235	69.7	Never used

For other media, in addition to textbook, most students used the internet at the high level and the local area computer network at the medium level. They also have necessary computer equipment and have access to high-speed internet connection. Table 5 below shows the actual statistical data for each type of media access.

Table 5 Method of accessing supplemental electronic media

Items	# samples	Percentage	Mean Level	S.D.
The local area computer network	105	31.2	3.46	1.370
The Internet	112	33.2	3.52	1.342
The necessary computer equipment	276	81.9	-	-
The high-speed internet connection	166	49.2	-	-

At the high level, in the students' opinion, the problems and obstacles contributed to their inability to pass the course stem from the difficulties of subject matters, too many topics covered in the textbook, and skipping the supplemental classes. Table 6 below shows the actual percentage for various reasons.

Table 6 Problems and obstacles contributed to students' inability to pass the course

Reason	# samples	Percentage
The difficulties of subject matters	146	43.3
Too many topics covered in the textbook	120	35.6

As far as gaining an understanding through the available electronic media designed by the author for the course, students indicated that the content appropriateness and media design were at the high level. Moreover, they also indicated that the lessons contained in the electronic media were concise, easy to understand, and helpful in facilitating the reading of the textbook. However, they suggested that the materials covered in the electronic media should be improved in terms of the computational aspect of the materials and an increase in

examples and exercises. The technical aspect of the design of such electronic media should also be improved in order to enhance the effectiveness of the presentation of the materials.

Table 7 Comprehension level, content appropriateness and design suitability of the electronic media for the course

Category	#samples	percentage	Mean level	S.D.
Comprehension level	175	51.75	3.27	0.756
Content appropriateness	156	46	3.66	0.795
Design Suitability	169	50.26	3.75	0.784

5. Conclusion and Future Research Directions

The results of the study show that in the students' opinion, the problems and obstacles for their inability to pass the course stem from the difficulties of subject matters, too many topics covered in the textbook, and skipping the supplemental classes. Most did not attend the supplemental classes, but opted for the sound CD for the course on many occasions since time is the overriding factor for such decision. The use of electronic media in such a course was useful and effective for students' ability to pass the course. As far as gaining an understanding through the available electronic media for the course, students indicated that the content appropriateness and media design were at the high level. Moreover, they also indicated that the lessons contained in the electronic media were concise, easy to understand, and helpful in facilitating the reading of the textbook. However, they suggested that the materials covered in the electronic media should be improved in terms of the computational aspect of the materials and an increase in examples and exercises. The technical aspect of the design of such electronic media should also be improved in order to enhance the effectiveness of the presentation of the materials.

The author hopes that the results of this research can shed some light on the problems many students face when studying the cost accounting and managerial accounting course at STOU. Moreover, the use of electronic media to supplement primary media of instruction is viable and has the potential to improve student performance in the future. Of course, the content appropriateness and design of such electronic media should be further developed to reflect the ever-changing educational technology. In addition, the results of the study can serve as a model for improvement for other courses. Lastly, the author plans to continue this line of investigation into the actual implementation of this electronic lessons in future offering of this course so that their impact on students' performance can be truly measured.

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Learners' Perceptions on Calculation Based Courses in Their Programme of Studies at Open University Malaysia



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Abstract

Among the challenges faced by many adult learners who continue their studies at either the Diploma or Bachelor programme is the requirement to take calculation courses especially Mathematics and Statistics. These courses are among the courses to be taken as a requirement for graduation. This requirement is the provision for most programs offered by the Open University Malaysia (OUM). The prescribed conditions are prompting many learners at OUM who feel that Mathematics or Statistics courses have become a burden to them, especially for those who do not have a strong foundation in Mathematics. This study was conducted to investigate the learners' perceptions on Mathematics and Statistics. The study covered four domains – learners' interest in Mathematics or Statistics, learners' motivation for learning, materials and learning methodology, as well as learners' attitudes towards the two courses. Respondents of this study were 781 learners from 12 OUM learning centers throughout the country who are taking or have taken in either Mathematics or/and Statistics or both. It is a descriptive research methodology using questionnaires as its instrument. The study found that overall OUM learners are interested in Mathematics and Statistics courses. They remain motivated and will continue to pursue their studies even if they failed in Mathematics or Statistics. The respondents also stated that the learning methodology carried out at OUM is sufficient for them to study Mathematics and Statistics. In addition, they have a positive attitude towards Mathematics and Statistics and agree that these courses are essential for their future careers.

Keywords: Calculation based courses, learners' interest, learners' motivation, learners' attitude

Introduction

The majority (95%) of learners at OUM are working adults. Of this total, 70% of them are between the ages of 30 to 50 years (Ng, Izanee, Latifah & Ramli, 2008). Most of them have left the formal education more than 10 years. There are those who have a weak foundation in Mathematics and many who did not take Mathematics at their secondary schools.

In addition, OUM learners have diverse employment backgrounds. Some are employed in managerial and decision-makers, and others who work as clerical or junior staff. As such, they have a different exposure in terms of the nature of the jobs. There are those who work in

financial and accounting sector of who always play around with figures and mathematics, while others who work in the public sector or administration without playing around with figures and calculations. These factors influence the ability of learners in learning calculation based courses.

Learners attrition is an issue addressed by OUM to ensure that the learners will continue their studies until they successfully completed their courses. According to Latifah and Mansor (2007), the average dropout rate among learners at OUM open market between 2005 and 2007 was 21.5%. There are various causes that contribute to learners' attrition. Among other causes of attrition for ODL learners are a declining motivation when facing with an increasingly difficult learning topics, difficulties in adapting to independent learning environment, and learners feel isolated or lost due to a long gap between tutorial classes. The difficulty to keep in touch with instructors at the time they are needed to help learners also became the reason for declining in learning motivation which leads to attrition.

Apart from the common challenges mentioned above, other challenge faced by ODL learners is having to learn the calculation based courses such as Mathematics and Statistics. It is part of the requirement for graduation and achievement in these courses will be reflected in learner's Grade Point Average (GPA). For many learners who take calculation courses through ODL system, it was found that independent learning approach cannot be fully utilized probably because it is hard to understand the concept and to do calculation involving the application of a formula in answering questions (Richard, Kaur and Latifah, 2009).

It is also difficult to learn Mathematics or Statistics through online as most learners do not have sufficient skills to enter Mathematical formulas into the computer. Therefore, it becomes difficult for the learners to ask questions involving Mathematical equation or formula in the online forum. Lack of basic knowledge in Mathematics at secondary school level may also lead to poor achievement of Mathematics at university level. As stated by Mathewson (1999), most of the learners failed to achieve the desired level of achievement due to weaknesses in basic knowledge or prior knowledge.

As a result many learners not only fail to get good grades, but also difficult to achieve minimum proficiency level in Mathematics or Statistics. This has a negative impact on the overall academic performance of learners due to failure or poor performance in Mathematics or Statistics thus affecting their Cumulative Grade Point Average (CGPA).

It would also undoubtedly give a bad learning experience even more so when forced to learn things that they did not have a strong foundation or no interest. More disappointing especially when there were learners who had to quit their study before graduating due to failure in those courses.

Research Questions

This study would be able to answer some of the following questions;

- Are OUM learners interested in Mathematics and Statistics?
- Does failure in Mathematics or Statistics cause the learners not continuing their studies at OUM?
- Do the learners need more guidance to master learning of Mathematics and Statistics?
- Do OUM learners consider Mathematics and Statistics are not important in the program that they follow?
- What are the problems faced by the learners in learning Mathematics and Statistics?

Research Objective

This research aimed to achieve the following five objectives:

- i. To determine whether the learners are interested in Mathematics and Statistics which they need to take as part of their graduation requirements for the program.
- ii. To determine whether the failure in Mathematics or Statistics courses may cause them to discontinue their studies or they will strive to follow the program successfully.
- iii. To determine whether or not the present method of learning provided by OUM is sufficient, or they need more guidance as well as other additional methods to help them to master the learning of Mathematics and Statistics.
- iv. To verify whether OUM learners consider Mathematics and Statistics as important courses in their program of study at OUM.
- v. To find out the problems faced by OUM learners in the learning Mathematics and Statistics.

The findings would provide useful guidelines for the university in formulating a new or additional delivery approach to enhance learning of Mathematics and Statistics.

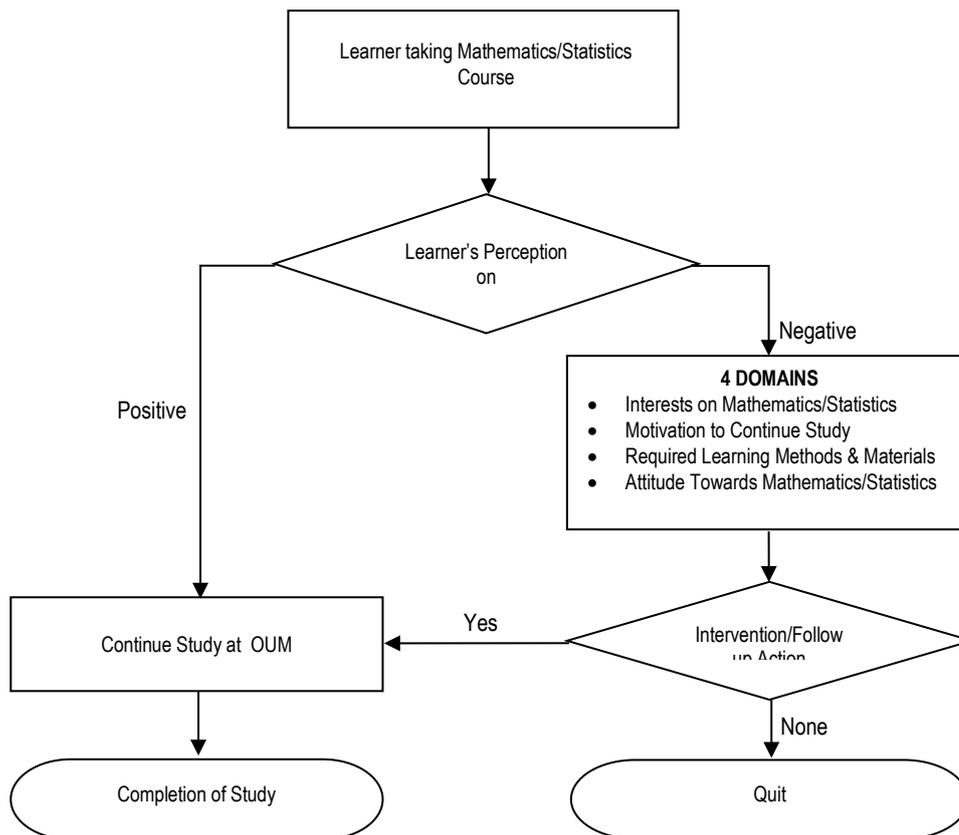
Scope of Study

The study was confined to OUM learners who were pursuing their studies at OUM learning centers throughout the country. The respondents comprised of learners who took any of the calculation courses either Mathematics and/or Statistics. Those who had already taken any of those courses are also included.

Hypotheses

There were four hypotheses as follows:

- i. OUM Learners are not interested in Mathematics and Statistics courses.
- ii. Failure in Mathematics or Statistics course will cause OUM learners to not continue their studies at OUM.
- iii. OUM Learners need more guidance to master learning of Mathematics and Statistics.
- iv. OUM learners consider Mathematics and Statistics courses as not so important in the program.



Conceptual Framework

Literature Review

Adults learn more effectively when they are able to associate knowledge with what they had learned in their lives. They need to believe that what they learn will be able to help them achieving what they want (Wikipedia, 2011).

According to Ellsworth (1994), there are four types of interactions that should occur in the teaching and learning. First, interactions between students and lecturers in the learning process, second the interaction between students and lecturers while searching for information on the internet, third joint activities between the lecturers and the administration, and fourth collaboration among students during lessons.

Angiama (2000, p.192) found that Math teaching techniques for adult learners currently have to make them think throughout their learning experiences. It is because the personal experience that they have, when combined with the learning experience will make them master Mathematics more easily.

In a study on the transition from traditional learning system to the flexible learning mode, Holley (2002) found that changes involving on-line interaction to replace face to face meeting is still not fully accepted by adult learners. They still need a longer meeting time and more often to cope with their learning.

On the other hand, Russell (2001, 2005) found that there was no significant difference between the learning that occurs in the traditional environment compared to distance learning. It was also supported by Neuhauser (2002) who found that the intermediate of teaching does not give a clear impact on learning outcomes.

Studies conducted by the Abu Zarin, Che Aziz, Abdul Halim and Chiam (2008) on the effectiveness of the online forum for the course found that there is a quantitative social presence which is high among the students. The findings show that for the calculation based courses, students are more comfortable learning from each other.

Methodology

This study used descriptive qualitative research methods and quantitative survey of learners' perception on Mathematics and Statistics in four domains - Perception on Interests, Perceived on Motivation, Perception on Learning Methods and Learning Materials, and Perception on Attitude. Based on Sample Size Tables presented by Krejcie and Morgan (1970), the minimum required sample size was 380 samples from the population. Non-random convenience sampling approach was used in the data collection process. In conducting this study, questionnaires were distributed to 1,000 OUM learners in 12 major OUM learning centers throughout the country who take any of the Mathematics and/or Statistics courses.

Research Instrument

The instrument used was a questionnaire involving 22 questions adapted from several models that have been developed and tested. To test the perception of motivation, personal motivation research instruments adapted by Cooper and Fishman (1977) and the Attitude / Motivation Test Battery (AMTB) by Gardner (1985), adapted to the perception of attitude. In addition, the researcher also referred to the Intrinsic Motivation Self-Determination Theory (SDT) (Deci & Ryan, 1986) and the Three Components of Commitment Model (TCM) (Meyer & Allen, 1991) to measure the learner's commitment to remain in their program follow. Items that are found to have developed internal consistency values exceeding 0.8.

This questionnaire contain three parts namely Part A, Part B and Part C. The questionnaire for the study was designed to collect the following categories of data:

Part A - demographic background of respondents such as age, sex, ethnic, program of study, number of calculations courses taken approval, employment sector, working experience acquired and Mathematics achievement at secondary school examination; Part B – consists of twenty two (22) items to measure the respondents' perception on Mathematics and Statistics courses. As shown in Table 1 the items were grouped into four clusters which associated with respective hypothesis.

Cluster 1 (Perception on Interests), Cluster 2 (Perception on Motivation), Cluster 3 (Perception on learning methodology and learning materials), and Cluster 4 (Perception on Attitude). Respondents were asked to provide responses to 22 statements based on a five-point Likert scale, i.e. 1 (Strongly Disagree); 2 (Slightly Disagree), 3 (Neutral), 4 (Slightly Agree) and 5 (Strongly Agree). Part C – suggestion from respondents on how to improve learning of Mathematics and Statistics at OUM. Relevant recommendations given by the respondents were used by the researcher to put forward a proposal and discussion.

Question Number	Hypothesis	Cluster	No. of Questions
14 – 18	1	Perception on Interests	5
19 – 23	2	Perception on Motivation	5
24 – 30	3	Perception on Methods	7
31 – 35	4	Perception on Attitude	5

Table 1: Cluster of items in questionnaire

Pilot Study

To ensure the reliability of the instrument (questionnaire), a pilot study was conducted before the questionnaire was distributed in the actual study. A total of 57 samples were collected among learners at OUM. Reliability Analysis-Alpa Scale using SPSS (Version 17) has shown the value of Alpha's overall perception is 0.833, exceeding the 0.6 alpha. According to Best and Kahn (1986), Alpha coefficients above 0.60 is acceptable for a good item reliability. Therefore, the questionnaire built was found to have high reliability.

Results/Findings

Out of 1,000 questionnaires distributed, 781 (78.1%) returned forms were completed by respondents. For hypothesis testing, the one sample T-test was used to compare the population mean ($\mu = 3.00$) with a mean score for each group of items related to respective hypothesis.

In terms of gender - 400 (51.2%) were male and 381 (48.8%) were female respondents. A total of 361 (46.2%) respondents aged below 30 years, 301 (38.5%) people aged between 30 and 40, 96 (12.3%) people aged between 41 and 50 years and 23 (2.9%) people aged over 50 years.

Table 2 below shows the mean scores for each statement in the Perception on Interest cluster. Four out of the five items contained in this cluster have mean values above 3.00. The findings for this cluster explained that generally the respondents are interested in and admitted that they had a positive attitude towards Mathematics or Statistics. It is shown through actions such as attempting to answer questions and attending tutorial sessions. However, these findings showed that the majority of respondents said that Mathematics and Statistics courses were not easy for them.

Statement	Mean	Std. Deviation
I like Mathematics or Statistics courses.	3.48	1.067
Mathematics or Statistics course is easy for me.	2.79	1.137
I have a positive attitude towards Mathematics or Statistics course.	3.70	.913
I always try to understand the content modules for Mathematics or Statistics before attending tutorials.	3.61	.841
Although attending tutorials are not compulsory, I will still present for tutorial sessions for Mathematics and Statistics.	4.09	.822

Table 2: Mean Score and Standard Deviation (Perception on Interest Cluster)

Table 3 below shows the mean scores and standard deviations for the five statements contained in the Perception on Motivation. Every statement contained in this cluster has mean value above 3.00.

Statement	Mean	Std. Deviation
Mathematics and Statistics courses increase my motivation to learn.	3.60	.956
Achievement in Mathematics or Statistics does not affect my decision to pursue studies at OUM.	3.38	1.106
Failed in Mathematics or Statistics does not stop my efforts to continue studies at OUM.	3.76	1.042
Despite failing in Mathematics or Statistics, I will keep trying to improve my academic performance.	4.07	.863
Achievement in Mathematics and Statistics affects my Cumulative Grade Point Average (CGPA).	4.08	.834

Table 3: Mean and standard deviation scores (Perception on Motivation Cluster)

Table 4 below shows more clearly the position of the mean value for each item in the Perception on Learning Methods and Learning Materials. The result clearly showed that on top tutorial sessions, respondents also required additional learning materials to help them in learning Mathematics or Statistics. Respondents also agreed that the number of contact hours for tutorial sessions for Mathematics and Statistics were not sufficient (mean 1.97). They also felt that the method of learning for both courses was also inadequate and should be increased (mean 2.76).

Statement	Mean	Std. Deviation
Other methods such as i-lecture is very important to help me master the learning of Mathematics or Statistics.	3.92	.873
Online discussion is very important to me.	3.06	1.263
Tutorial sessions help me to better understand the learning of Mathematics or Statistics.	4.27	.782
In addition to the tutorial, I need additional materials in learning Mathematics or Statistics.	4.36	.674
Additional learning resources through OUM portal such as MRC can help me in the learning Mathematics or Statistics.	3.65	.902
Existing method for learning Mathematics and Statistics is sufficient.	2.76	1.143
Total contact hours for tutorial sessions is enough for me to learn Mathematics and Statistics.	1.97	.774

Table 4: Mean and standard deviation scores (Perception on Learning Methods and Learning Materials Cluster)

Table 5 below shows the mean score for each statement in Perception on Attitude cluster. It was found that all items in this group had a mean value of more than 3.00. This means that the majority of respondents gave a positive response (whether agreed or strongly agreed) with each statement in the cluster. It includes the perception of the need for Mathematical skills, improved analytical with the knowledge of Mathematics and Statistics, Mathematics and Statistics courses associated with the program followed and the future of their careers with the analytical skills.

Statement	N	Mean	Std. Deviation
I venture into the field of employment which requires Mathematical or Statistical skills.	781	3.52	1.073
Mathematics and Statistics can improve my analytical thinking.	781	3.90	.837
I believe Mathematics and Statistics are important for the program that I am studying.	781	3.64	.944
I believe that a person with good analytical skills will become a good manager.	781	4.02	.753
Mathematical and Statistical skills provide a good opportunity to progress my career in the future.	781	4.03	.891

Table 5: Mean and Standard Deviation Scores (Perception on Attitude Cluster)

Cluster	Mean, μ	Std. Deviation
1	$\mu_1 = 3.53$.67
2	$\mu_2 = 3.78$.59
3	$\mu_3 = 3.43$.49
4	$\mu_4 = 3.82$.69

Table 6: One-Sample Statistics: Mean and Standard Deviation Scores for respective cluster

	Test Value = 3.00					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Mean 1	22.38	780	.00	.533	.486	.580
Mean 2	36.66	780	.00	.778	.737	.820
Mean 3	24.34	780	.00	.427	.393	.462
Mean 4	33.44	780	.00	.823	.774	.871

Table 7: One-Sample Test : Mean 1, Mean 2, Mean 3 and Mean 4

Mean score for cluster 1, μ_1 , is 3.53 (Table 6) (i.e. $\mu_1 > 3.00$) and the standard deviation, σ , is 0.67. T-Test Results in Table 7 shows that there is significant difference (sig. value < 0.05) between the mean population with mean score for Perception on Interest. Thus, it appears that this finding is not consistent with H_1 . Therefore the conclusion is that OUM learners are interested in Mathematics and Statistics.

Mean scores for cluster 2, μ_2 , is 3.78 (Table 6) (i.e. $\mu_2 > 3.00$) and the standard deviation, σ , is 0.59. T-Test Results in Table 7 shows that there is significant difference (sig. value < 0.05) between the mean population with mean score for Perception on Motivation. Thus, it appears that these finding is not consistent with H_2 . Therefore, the conclusion is that the failure in Mathematics or Statistics will not cause learner to not continue their studies at OUM.

Mean score for cluster 3, μ_3 , is 3.43 (Table 6) (i.e. $\mu_3 > 3.00$) and the standard deviation, σ , is 0.49. However, the T-test result as shown in Table 7 shows that there is significant difference (sig. value < 0.05) between the mean population with mean score for Perception on Learning Methods and Learning Materials. Thus, this finding is not consistent with H_3 . Therefore, OUM learners generally do not need extra guidance to master learning Mathematics and Statistics.

The mean score for cluster 4, μ_4 , is 3.82 (Table 6, the $\mu > 3.00$) and the standard deviation, σ , is 0.69. T-test results as shown in Table 7 shows that there is significant difference (sig. value < 0.05) between the mean population with that of for Perception on Attitude. The finding is inconsistent with H_4 . The conclusion is that OUM learners consider Mathematics and Statistics as important courses in the program.

Conclusion and Discussion

Generally, OUM learners are interested in Mathematics and Statistics. As a proof of having positive attitude towards Mathematics and Statistics, learners try to answer the tutorial questions and attend face to face (F-2-F) tutorials. They also try to understand the content of the course module before attending the tutorial sessions. However, most learners admit that Mathematics and Statistics are tough courses.

Passion for Mathematics and Statistics motivated the majority of OUM learners to continue their studies until the end. Poor achievement or even failure in Mathematics or Statistics did not hinder their efforts to continue their studies. OUM learners generally opined that the present learning materials and learning methods provided by the institution are sufficient although specifically they need more time for F-2-F interaction. Most learners still preferred the conventional method of learning or F-2-F as the preferred method to learn Mathematics and Statistics.

Online discussion for Mathematics and Statistics is found unsuitable by the majority of OUM learners. This is in line with the findings of Dam (2004) who found that older learners showed their interest and abilities were decreasing towards e-learning. This may be due to the difficulty in typing the Mathematical or Statistical formulas.

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Portfolio Assessment: An Alternative Measure of Prior Learning at Open University Malaysia



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Abstract

Adult learners acquire valuable knowledge and skills throughout their life and work experiences. Learning that occur within a formal, non-formal or even informal context is known as experiential learning. In the purview of lifelong education, experiential learning may be given due recognition upon assessment and be used as credentials to obtain higher qualifications. One of the common instruments in the assessment of prior experiential learning is the use of portfolios. Portfolios provide a record of the accumulated learning experienced by a learner. When preparing a portfolio, the learner is required to reflect on what they have learnt from their experiences, relate them to learning outcomes relevant to a programme of study and to provide evidences to support their learning claims. In developed countries such as Canada and Australia, it is relatively common to use portfolios as compared to developing countries like Malaysia. As pioneer in the area of prior learning and adult education, Open University Malaysia (OUM) initiated the use of portfolios in the year 2010 with the intention to provide an alternative instrument to measure adult learning compared to the standard examinations. The initiative has gained acceptance among its learners as those who succeed in the portfolio assessments are awarded with academic credits which allow them to advance through their programme of study. This paper presents the OUM experience in the development and implementation of portfolio assessment. Issues and challenges with regards to using portfolios are also discussed. This paper will be beneficial for institutions who intend to introduce portfolio as an alternative assessment in adult education.

Keywords: Portfolios, Prior Experiential Learning, Open University Malaysia

Introduction

Adult learners acquire valuable knowledge and skills throughout their life and work experiences. The European Commission's Memorandum on Lifelong Learning categorized three types of learning among adult learners; formal learning, non-formal learning and informal learning. By definition, formal learning "takes place in education and training institutions, and leads to recognised diplomas and qualifications". Non-formal learning, on the other hand, "occurs alongside the formal systems of education; however it may not

necessarily lead to formalised certifications”. Such learning often happens at the workplace. Informal learning, on the other hand, is viewed as “a natural accompaniment to everyday life”. It is unintentional and often overlooked as valuable learning. Learning that occur within all three context above is known as experiential learning. In the purview of lifelong education, experiential learning may be given due recognition upon assessment and be used as credentials to obtain higher qualifications.

One of the common ways of documenting experiential learning is the use of portfolios. In developed countries such as Canada, United States and Australia, portfolios are used to assess different levels of learning in the field of education. From elementary school up to university levels, students create portfolios for multiples purposes; such as school projects, course assignments, compilations of written works, and lab or even research-based courses. According to Kohn (2000), portfolios can be meaningful alternatives used to assess performance as compared to conventional test papers and standardized testing. In the context of adult education, portfolios are applicable and widely acceptable in the assessment and accreditation of prior experiential learning. It records various dimensions of learning that occur beyond the formal classroom settings. Learners articulate and provide evidences of learning through the development of a portfolio (Michelson & Mandell, 2004).

Open University Malaysia (OUM) is the first open and distance learning institution in Malaysia. OUM was established to contribute to the democratization of education by enabling access to affordable quality education in the country. It capitalizes on the strength of its shareholders; the eleven public universities, and uses a unique blended pedagogy which combines self-managed learning, face-to-face tutorial and online learning to cater to the needs of its adult learners. Since its inception in 2001, the University has enrolled more than 100,000 learners with 35,000 graduates from various disciplines at undergraduate and postgraduate studies. Majority of learners at OUM are working adults between the age group of 28 – 45 years, who seek paper qualifications for the purpose of career advancement, gaining new knowledge and for some even self satisfaction. In recognition that these learners may have acquired knowledge, skills and competencies from various sources at different points of time in their lives, it becomes impetus for the institution to consider providing alternative forms of assessment to measure this form of experiential learning.

This paper presents the OUM experience in using portfolios as an alternative measure of prior experiential learning among adult learners. It explains the processes involved and the outcomes of portfolio assessment. The paper further discusses the challenges faced in the development and implementation of portfolio assessment and the way forward for future improvements in the aspects of prior learning for the University.

myAPEL at Open University Malaysia

One of the significant milestones of OUM in the area of prior learning is the introduction of the Accreditation of Prior Experiential Learning (otherwise known as myAPEL) in 2010. myAPEL provides an avenue that recognises, assesses and awards learners with academic recognition for experiential learning. The initiative was based on the notion that adults acquire valuable learning from various sources in life and that upon proper assessment; these learning may have equivalent academic value to a particular course of study. The move is relevant for OUM as its adult learners can obtain formal recognition for their non-formal and informal learning.

The myAPEL process is made up of three main stages; the Pre-Assessment Stage, the Assessment Stage and the Post-Assessment Stage. Academic rigour is applied to each stage of the process to ensure that ultimately only learners with sufficient experiential learning will be rewarded with academic recognition and subsequently academic credits. This move would then shorten their period of study and speed up the process to graduation. Learners can only proceed to another stage of assessment after satisfying the criteria for a particular stage.

At the Pre-Assessment stage, learners complete an online Knowledge Resume; providing detailed information on education background, work experience, and other forms of learning relevant to the course applied. Their applications are reviewed by subject matter/course experts from the corresponding faculties. Only learners with relevant experiential learning and those who show potential of being successful will be allowed to proceed to the following stage of Assessment. The screening process at this stage is important to determine whether a learner should proceed with the assessment or otherwise.

Upon successful completion of the Pre-Assessment stage, learners who proceed to the Assessment stage are assessed either through Challenge Tests or Portfolio Assessment. Both assessments are developed based on specific course learning outcomes and are assessed by subject matter/course experts. For the purpose of discussion, this paper will only focus on the use of portfolio assessment.

Learners who are subjected to the Portfolio Assessment are provided with an e-Portfolio manual as a guide. Simultaneously they are also given access to the e-Portfolio system. They are then. The e-Portfolio manual contains what constitutes a good portfolio, how to learners should develop portfolios according to the requirements of the course as well as steps on how to submit the portfolio using the available system. Specifically, learners are guided on how to develop their prior learning claims, in line with the stated learning outcomes for the course, as well as to identify the types of evidences to be included to support their claims. The criteria of evaluation used by the assessors are also known to the learners.

Upon submission, portfolios are assigned to assessors using a random method of allocation. Assessors evaluate the extent to which learners meet the required learning outcomes based on four main criteria namely, relevancy, authenticity, currency and sufficiency. The assessors are also required to validate the learning evidences through methods of validation such as interviews, workplace visits, product demonstrations or even presentations. For each learning outcome, a score will be awarded by the assessor and at the end; a weighted average of scores will be computed by the system to provide the assessment results. Learners who meet at least half of major learning outcomes will be considered successful and be awarded with APEL credits.

The Post-Assessment stage includes processes resulting from the myAPEL assessment; namely the award of course credits and the appeal mechanism. Learners, who are successful in their assessment, are awarded with course credits. They are also exempted from undertaking the course. On the other hand, unsuccessful learners will be required to undergo the course through the usual method. An appeal mechanism is available should learners intend to petition for their results.

Outcomes of Portfolio Assessment

Table 1 outlines the outcomes of the myAPEL assessment according to the three stages for the years 2010, 2011 and 2012. Applications were received and numbered according to courses.

In the first year when the myAPEL assessment was first introduced, a total of 54 applications were received at the Pre-Assessment stage. However, only 10 applications (18.5%) were approved for the Assessment stage, of which 3 applications were subjected to the Portfolio Assessment. Upon evaluation by the assessor only 1 applicant obtained the APEL credits through Portfolio Assessment. In the year 2011, a total of 89 applications were received at the Pre-Assessment stage. Upon the screening stage, only 23 applications (25.8%) were allowed to proceed for assessment. Twelve applicants attempted the Portfolio Assessment. Of this number, 10 applicants were successful thus leading to a success rate of 83 per cent. The number of applications increased to 143 in the year 2012. Of this number, 46.9 per cent were allowed to proceed to the APEL Assessment stage. Twenty-six applicants attempted the Portfolio Assessment, and the success case recorded for the year was 88.5 per cent.

The number of applications was low at the initial stage when APEL was first introduced. The reason could be due to the lack of exposure to APEL and learners being sceptical of the assessment involved. However, the numbers were noted to be on an increasing scale over a period of time after learners became aware of the availability of APEL as an alternative mechanism to obtain recognition for experiential learning. However, upon screening by the subject matter / course experts, only applicants with relevant learning were allowed to proceed to the following stage of Assessment. The screening step was effective as it improves the overall success rate of learners who were allowed to attempt the assessment. Finally, it was noted that learners who attempted the Portfolio Assessment had higher success rate as close guidance were provided during the portfolio development process.

Table 1: Outcomes of the myAPEL Assessment

Year	Pre-Assessment Stage	Assessment Stage	Proportion of Portfolio Assessment	Post Assessment Stage
2010	54	10 (18.5%)	3 (30.0%)	1 (33.3%)
2011	89	23 (25.8%)	12(52.2%)	10 (83.3%)
2012	143	67 (46.9%)	26 (38.8%)	23 (88.5%)
TOTAL	286	100	41	34

Challenges in the Implementation of Portfolio Assessment

Faculty

Prior to enabling the Portfolio Assessment, several initiatives had to be undertaken at the faculty level. Among the initial preparations was the identification of courses that can be applicable for myAPEL assessment. It was important for faculties to decide and made known the list of courses and its learning outcomes to learners. The exercise to review course learning outcomes was also necessary to ensure that experiential learning can be measured objectively. For the purpose of evaluation, weightage are assigned based on the relative importance of each learning outcomes in the course. Consequently, faculties also appoint the subject matter / course expert to evaluate the portfolios for each course.

myAPEL System

The myAPEL system is developed to manage the overall process of myAPEL from the Pre-Assessment stage up to the completion at the Post-Assessment stage. The conceptualisation and development of the system itself is a complex process. It requires the system developer and administrator to be knowledgeable about the prior learning processes, as well as having a macroscopic view between the interconnectivity of each process and procedures within the system. This integrative system is also designed to provide customisation to its users based on their existing learner landscape. The system derives its input from the main student information and campus management system and integrates the outcome of the myAPEL assessment back to the system for record purposes. It must also be able to cater to the demands of its user; the learners, assessor, administrator and faculty members.

Learner

The major contributing role in determining the success of a portfolio assessment lies in the hands of the learner. To qualify for prior learning assessment, the learner must first decide if his/her experiential learning amounts to a sufficient and acceptable level for the award of academic credits. The learner is required to reflect and relate his/her prior learning according to the desired learning outcomes and articulate them through the prior experiential learning claims. In addition to the claims, the learner must also provide relevant evidences to support and prove that his/her learning occurred. It is important for the learners to be guided on how to use the myAPEL system for online submission of portfolios. They must be trained on how to write prior learning claims as well as select relevant evidences to support their claims. Learners are also required input their claims and attach evidences into the system before submitting the portfolios. They may attach various file types such as images, documents, web files, audio/video and even 3D files as evidence. The system allows learners time to make adjustments prior to the submissions.

Assessor

Assessors play an important role in the evaluation of portfolios. Faculties appoint assessors from a pool of subject matter/course experts within the field. Assessors must be well trained to evaluate wide spectrum of learning as the learning experience acquired are diverse and not homogenous. It is important that the assessors maintain academic rigor when determining the extent to which the learner has met the intended learning outcomes as academic credits will only be rewarded to the deserving individual. The need to train assessors using similar evaluation rubrics is also evident so as to minimise the subjectivity and differences of opinions during the evaluation process.

The Way Forward

The assessment of prior experiential learning is inevitable among institutions of higher learning especially when its learners comprised of working adults. Learning should not be confined to the borders of a classroom but also taking into consideration the knowledge, skills and competencies that could be acquired from various sources of learning. However, for recognition and accreditation to be given, assessment and evaluation of experiential learning must be made based on the specific learning outcomes. For OUM, myAPEL is relevant in this context as it assesses the extent to which experiential learning matches the specific learning and competency outcomes for a stipulated course.

The use of portfolios is only one of the many methods to measure prior experiential learning. As compared to other assessment methods, the process of portfolio development can be

detailed, complex and time consuming. Institutions who intend to use portfolios to assess prior learning should consider factors such as having the qualified experts and trained personnel as assessors, a system to manage the processes involved as well as proper training mechanism to support learners in the development of the portfolio. Academic policies relating to assessments as well as quality assurance processes must be established.

As pioneer in the area of prior learning and adult education in Malaysia, OUM will continue to take steps to further explore and enhance its existing practices of using portfolios as its assessment methods. One of such initiatives is to intensity awareness among its learners on the availability of portfolio assessment to measure prior learning. By such actions, OUM intends to increase the acceptance of prior learning recognition and the use of alternative methods to assess experiential learning among its adult learners.

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Sub-theme 3
Leading and Managing Quality Schools

Synthesis of Research on Instructional Supervision in Basic Education Schools



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Abstract

The purposes of this study were to analyze and to synthesize research on instructional supervision in basic education schools. The sample consisted of 37 theses and dissertations submitted to 4 outstanding universities during the 2004 – 2009 academic years. Research instruments were a research quality assessment form and a research conclusion form. Data obtained were analyzed by the means of frequency, percentage, and content analysis. The main findings revealed that the majority of research contents involved the use of supervision models and the needs for supervision. The methods of the studies mostly were of the quasi-experimental and survey types dealt with one independent variable and one dependent variable measured mostly via questionnaires and tests. Moreover, the synthesis results showed that the uses of instructional supervision to develop the teacher competencies were in congruence, especially the teachers being able to develop their own instructions, having good attitudes toward supervision, and helping their students' learning improvement. However, the teachers highly needed supervision on the learner-centered instructional management. Regarding supervision problems, three aspects of the problems were found including systematic preparation for supervision, supervision practice, and evaluation of supervision. The study suggests that instructional supervision should be an effective tool for school administrators to develop their teachers' teaching behaviors.

Keywords: Research synthesis, Instructional supervision, Basic education school

Introduction

Learning reform is an ultimate intention of the 1999 Thai National Education Act which has to be put into noticeable practices by all educational levels. In so doing, schools should provide the important mechanism of instructional supervision to help teachers change their teaching and learning that will affect the achievement of their students (MOE, 2010). Based on this notion, basic education schools have realized the importance of improving the quality of teachers' teaching with instructional supervision process. In addition, many teacher education institutions have increasingly focused on the studies of instructional supervision. Although supervision of instruction received a widespread attention among educational institutions, previous studies revealed that the Thai society is still not satisfied with teacher quality. Noticeably, Thai students' national achievement test scores have become under its standard levels in almost all subjects. Besides, the achievement results as assessed by the Program for International Student Assessment (PISA) of the students have been very poor in the areas of reading, mathematics, and problem solving. Particularly, many Thai students who completed compulsory education have not met its standards yet. Undoubtedly, there are many causes of the problems connected to teacher quality. However, the effectiveness of instructional supervision process in each school is still questionable; because many previous studies show most teachers cannot present their in-depth understanding about the curriculum and cannot translate it into action due to the lack of effective in-school supervision (Office of the Education Council, 2008; 2009).

A social environment is rapidly changing. The efforts of Thai society to raise the quality of teachers through instructional supervision should be developed constantly to meet the change. Thus, the authors are aware of the necessary for analyzing and synthesizing

knowledge in relation to instructional supervision at basic education level and expect that knowledge gained might help school administrators and teachers apply to improve the quality of schools and to keep pace with the social change. The purposes of the current study were to analyse and to synthesize research on instructional supervision in basic education schools.

Methods

Since the aims of this study were to reveal the characteristics of theses and doctoral dissertations and to review their results in the last six years. It was formed to design of a descriptive study. The sample covered 37 theses and doctoral dissertations submitted to Sukhothai Thammathirat Open University, Srinakharinwirot University, Silpakorn University, and Chulalongkorn University during the 2004-2009 academic years. The data collection instruments were a research quality assessment form and a research conclusion form. Data on general characteristics of the studies were quantitatively analyzed by the means of frequency and percentage; while data on the results were qualitatively synthesized with the mean of content analysis.

Results and conclusions

The findings achieved in light of data obtained in this study were analyzed and synthesized into two major dimensions of the theses and doctoral dissertations employed including research characteristics and research results.

1. Main findings on analysis of research characteristics being studied were as follows:

1.1 The majority of research contents concerned the use of the supervision models and some issues related to instructional supervision such as supervision needs, teacher competencies, supervision skills and leadership behaviors, and supervision practices.

1.2 All research methods exploited were quantitative research methods, mostly using quasi-experimental and survey types, and dealt with one independent variable and one dependent variable as well as using questionnaires and tests for the measurement. The majority of attribute variables being studied were those on educational qualifications and work experiences of the respondents. There is also a small amount of research and development approach.

1.3 The employed instruments for variable measurement were questionnaires and tests. Quality verification by experts in the areas was the most prevalent method of instrument quality verification.

2. Synthesis results of the main research findings on instructional supervision in basic education schools were as follows:

2.1 Findings of every study on the effects of instructional supervision on the teacher's ability to manage learning or on the use of instructional supervision to develop the teacher competencies were in congruence. The teachers were able to better develop their own instructional management and had good attitudes toward supervision as well as help improve student learning and achievement.

2.2 Regarding research on the development of supervision models, only two models studied were found, namely the APFIE Model and the PPIE Model. The former is a science teacher instructional supervision model for developing academic capabilities of science talented students. The model consisted of five stages including assessing needs (A), providing information (P), formulating a plan (F), implementing supervision process (I) and evaluating the supervision processes for the whole semester (E). The latter is an instructional supervision model for developing teacher students' teaching experiences. The model consisted of four stages including preparing learning information (P), supervision planning (P), implementing supervision process (I), and evaluating the process (E). These two models were found to possibly improve teachers' teaching behaviors. In return, their students' achievement is more likely to gradually increase. Both teachers and students involved are satisfied with the models.

2.3 Concerning research on the needs for supervision, the teachers highly needed supervision on the learner-centered instructional management related to seven areas including organizing curriculum and implementation, lesson planning, preparing knowledge and skills for teaching, engaging knowledge management, creating instructional resources, assessing student learning, and conducting classroom action research.

2.4 As for research on the supervision skills and leadership of supervisors, most of the supervisors had both interpersonal relationship skills and technical skills. However, their academic leadership behaviors should be improved in terms of inspiring teachers to use teaching strategies, encouraging teacher motivation, following up student progress, managing educational resources effectively, influencing teachers' awareness of a safe and orderly environment, and observing teachers' classroom performance. In addition, the practices of internal supervision in school were found to be average at three levels, namely, at the school level, at the school administrator level, and at the teacher level. Also, three aspects of supervision problems revealed were those on systematic preparation of supervision, those on supervision practice, and those on evaluation of supervision.

Discussions and recommendations

According to the study, the key results should be discussed as follows:

1. The general characteristics of research

Most theses and doctoral dissertations were designed by using a quasi-experimental method, followed by using a survey method. It is seen that a peer coaching approach is highly dominant in performing research. Moreover, the studies were seemingly conducted to test the practical applications and aimed to determine the relationships between the concepts, such as instructional supervision-teacher performance. Besides, the data were collected mostly with the use of questionnaires and tests. Apparently, many studies repeatedly focus on exploring some issues in relation to in-school supervision process. Other disciplines such as Psychology and Sociology related to human factors are slightly connected with the field. In so doing, the research cannot supply a deeper knowledge base and produce a new theoretical frame for the method in these studies. For these reasons, it might reflect that most researchers have limited knowledge and skills in terms of using the same research methodology, therefore a new idea in the instructional supervision field cannot be produced and further expanded. However, the studies show that the researchers have worked in response to the requirements of learning reform that assign instructional supervision as an important mechanism to help teachers change their teaching and learning process.

2. The key results of research findings from thesis and doctoral dissertations

2.1 *Teacher development through instructional supervision models*

The important results reveal that instructional supervision models, especially the peer-coaching approach, can produce benefits to teacher performance. It is seen that many teachers are allowed to design their own teaching and learning process by using a variety of teaching techniques consistent with the course contents and the level of learners. They also have positive attitudes toward instructional supervision. That has possibly resulted in students with higher learning achievement. Therefore, it can be easily interpreted that instructional supervision is more likely to help teachers improve their teaching behaviors in order to affect the achievement of the students. Also, instructional supervision has become an important vehicle for the delivery of qualitative education as suggested by Beach and Reinhartz (2000). Beach and Reinhartz proposed a variety of instructional supervision approaches such as clinical supervision, peer coaching, and self-assessment. These approaches, if used to fit the needs of schools, can bring a huge benefit for teachers and administrators to improve teaching and learning quality. Besides, Amornvivat (2004) presented a friendly supervision model consisted of four elements, such as trust, collaboration, willingness, and openness. This might be another model appropriate with Thai schools in the needs of demanding change, requiring all school staffs working together in goodwill.

However, some studies indicate problems with effectively driving instructional supervision in Thai schools as clearly reflected by poor student achievement in general. It is seen that many teachers still have limitations that impinge the quality of teaching and learning in their classrooms. It is consistent with the research report of problems and guidelines for solving the instructional problems affecting the quality of learning in basic education by the Office of the Education Council (2009). The findings stated that teachers have not truly developed their knowledge and skills needed for the course. Moreover, monitoring and evaluation of teachers are not carried out continuously. In particular, most teachers lack of supervisors with the knowledge specialization to be their mentors.

2.2 *Supervision needs*

As the problems mentioned above, although most teachers seem satisfied with the results of instructional supervision, they still need effective instructional supervision approaches to really help them fulfill their knowledge and understanding of the curriculum and the student-centred teaching and learning strategies. Undoubtedly, effective teachers use a wide range of teaching strategies because there is no single or universal approach that suits all situations. Different strategies used in different combinations with different groupings of students will improve learning outcomes. Also, classroom action research might be a significant tool for teachers to explore new teaching and learning strategies (Khammanee & Wiratchai, 2003). Thus, to meet the needs of teachers, school administrators and the staff involved with instructional supervision should create a supervision plan and arrange appropriate times with teacher participation as well as provide feedback about teachers' strengths and weaknesses to improve their teaching performance (Sergiovanni & Starratt, 1993; Zepeda, 2007). Without teacher participation in the supervision process, the plan might not be implemented effectively. Teachers might not well cooperate due to lack of an in-depth understanding of the instructional supervision

consequences. Also, they might wrongly consider that the process is required by school administrators to inspect them rather than to support them. Such information, in accordance with the report of the Office of the Education Council (2009) can be interpreted that teaching in basic education has not affected the quality of student learning due to the fact that teachers have not been appropriately developed to meet their own problems and needs.

2.3 Supervision skills and leadership behaviors

The studies consistently demonstrate that the necessary skills of instructional supervisors are of interpersonal skills and technical skills. The supervisors having people skills can understand and feel the differences of teachers and can create a good relationship with them. Also, the supervisors having technical skills show the ability of operations in the field. Besides, previous research suggested that instructional supervisors should have four desirable characteristics, such as dependability, talented and well-rounded professionalism, supervision competent, and knowledgeable in educational management. Thus, it can be related that school administrators as instructional leaders within the school community should perform the ability of supervision practices in order to build trust and encourage teacher motivation for teaching improvement. However, it is seen that school administrators and teachers involved in supervision still have limitations in terms of knowledge and practical skills in supervision. Thus, it is emphasized that they need increasing abilities to be instructional coaches in terms of having the art of teaching, being an expert in the subject matter, and having interpersonal skills (Kowal & Steiner, 2007).

2.4 Supervision practices

The studies reveal that instructional supervision has been widely and obviously implemented in all effective schools to increase professional learning although some activities are different from each other due to the context and goals of each school. Mostly, the implementation of the supervision process in each school consists of five phases including supervision planning, informing teachers about what needs to be done, operating supervision, building teacher morale, and evaluating the results of the operation. Thus, schools running their supervision process should be aware of the importance of each phase by clearly stating in order to lead to actual practices. In addition, schools should not neglect the morale of the supervisors and the recipients, as well as continually monitoring, evaluating, and reflecting the process for the improvement of learning quality. Consistently, Wiratchai and Wongwanich (1999) argued that the process of supervision in most schools is not successful mainly because of the unsystematic supervision process. Hence, school administrators as change agents should firstly define the supervision structure of the school and provide roles and responsibilities to the supervisory board and staff involved, and facilitates the implementation of the various sets of instructional activities that will improve the teaching-learning situation. Without the school administrator endeavors, the quality of Thai student learning may not be successful.

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Factorial Validity and Reliability of Teacher's Self-Efficacy among Omani Teachers: Invariance across Gender

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Teacher self-efficacy is an important psychological state by which teachers can handle the stress of teaching. Teachers' self-efficacy can be conceptualized as the beliefs about one's ability to plan, organize, and carry out activities required to attain some educational goals. Also, cumulative research shows that teachers' efficacy beliefs represent an important factor in teachers' ability to teach (Bandura, 1997; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). The findings suggest that the effects of teachers' efficacy beliefs go in two ways: influencing teachers' behavior and impacting students' outcomes.

Bandura's social cognitive theory represents the basis in which teachers' efficacy beliefs research is formed. Bandura (1997) defines efficacy beliefs as the "belief in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3). In the context of teaching, Tschannen-Moran et al. (1998) define teachers' efficacy beliefs as teachers' beliefs about his/her ability to produce positive teaching outcomes. While there were several theoretical frameworks used in efficacy research (e.g., Rotter's locus of control, Tschannen-Moran & Woolfolk Hoy, 2001), majority of studies in this area used Bandura's social cognitive theory as a framework to conceptualize teachers' efficacy belief construct.

Beside this research that focused on teachers' characteristics in relation to their efficacy beliefs, other studies examined the connections between teachers' efficacy beliefs and students' outcomes. For example, Midgley, Feldlaufer, and Eccles (1989) found that students' math expectancies, perceived performance, perceptions of task difficulty were influenced by their transition from high to low-efficacy math teachers. Using preschool teachers' self-efficacy, Guo, Piasta, Justice and Kaderavek (2010) found that teachers' self-efficacy predicted children's academic gains and that children's higher in vocabulary gains were those who study in classes of high efficacious teachers and high levels of emotional support.

Furthermore, research has looked at possible factors influencing teachers' levels of efficacy beliefs. Bandura (1997) hypothesized four sources of efficacy beliefs that include enactive mastery experience, social persuasion, affective status, and vicarious experiences. Empirically, O'Neill and Stephenson (2012) examined these sources and found that for pre-service teachers, enactive mastery experiences and verbal persuasion got the highest mean score of influence among the four sources. These two sources of efficacy beliefs loaded on one component with the other two sources loaded on separate factorial components.

Bursal (2009) found that pre-service teachers' science/math efficacy beliefs were predicted by high school scores in math and science for a Turkish sample. Providing contexts that help teachers in acquiring difficult tasks is more likely to enhance their self-

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efficacy (Mackay & Parkinson, 2010). Using qualitative design, Wyatt (2010) concluded that providing teachers with more hands-on practice in conducting teaching tasks is more likely to enhance teachers' efficacy beliefs; micro-teaching modules can be a good context for these hands-on practices. Similarly, Guven and Cakir (2012) found that primary school English teachers' self-efficacy beliefs were influenced by their educational background. Teachers who had taken courses related to teaching English to children and those who graduated from English teaching department had higher levels of efficacy beliefs than those who did not take courses related to teaching English or those who graduated from department other than English teaching. In contrast, lack of coursework preparation in specific teaching tasks resulted in low levels of preservice teachers' efficacy beliefs (O'Neill & Stephenson, 2012). In contrast, Tuchman and Isaacs (2011) and Main and Hammond (2008) (both as cited in O'Neill and Stephenson, 2012) found no significant connection between teachers' efficacy beliefs and prior experiences. Teachers' efficacy for classroom management was predicted by a group of variables including teachers' motivation, enactive mastery experiences, personality characteristics, social persuasion and affective state (Oh, 2011).

A prerequisite to investigating relations of self-efficacy with other variables is to have a valid and reliable instrument that can measure self-efficacy. In Oman as well as in many Arab countries, such instrument is not available. It is important that an instrument that measures teacher's self-efficacy is made available. The aim of this paper was to test the validity and reliability of the Teachers' Sense of Efficacy Scale among Omani public school teachers. Since self-efficacy is a latent construct that cannot be directly observed, rigorous scrutiny is required for its validity to be established. Specifically, the structure of self-efficacy will be tested. Also, the similarity of structure across gender will be tested. The reliability of the sense of efficacy scale and sub-scales will be estimated via Cronbach's alpha.

Method

Sample

A nationally representative sample of Omani teachers (N= 2446; male = 997, female = 1449) was randomly drawn from the eleven school districts in the Sultanate of Oman. The average experience at present school was 6.16 (SD = 4.28) and the average workload was 15.66 (SD = 4.28) classes per week.

Instrument

The Teachers' Sense of Efficacy Scale (Tschannen-Moran, & Woolfolk Hoy, 2001) was administered to Omani teachers as part of a large scale study. The Teachers' Sense of Efficacy Scale is composed of 24 items that measure three factors: efficacy in student engagement (8 items, $\alpha = .84$), efficacy in instructional practices and strategies (8 items, $\alpha = .85$), and efficacy in classroom management (8 items, $\alpha = .84$). The items that measure each subscale are as follows (see Table 1):

Efficacy in Student Engagement: Items 1, 2, 4, 6, 9, 12, 14, 22.

Efficacy in Instructional Strategies: Items 7, 10, 11, 17, 18, 20, 23, 24.

Efficacy in Classroom Management: Items 3, 5, 8, 13, 15, 16, 19, 21.

Data Analysis

Preliminary exploratory factor analysis (EFA) was initially performed with half of the sample ($n = 1119$). Confirmatory factor analysis (CFA) was then conducted to test the a priori 3-factor model as a structure of the TSES. The other half of the sample was used for this analysis. Multisample CFA was then conducted as gender was the grouping variable. Comparison of results across different populations requires strong assumptions about the invariance of the factor structure. If the underlying factors differ fundamentally in different groups, then there is no basis for interpreting observed differences. For example, in cross-population (e.g., gender) studies, interpretation of even relations among different constructs presupposes that the factors are the same across populations. In the present investigation, we considered invariance across gender. Measurement invariance is an important component of construct validation and a pre-requisite to any variance-covariance and mean-level comparisons across subpopulations (i.e. gender). Hence, we leave as open research question whether there is support for the invariance of factor loadings (weak invariance), item intercepts (strong invariance), factor correlations, in relation to gender, and whether the relative support for invariance differs across gender.

The maximum likelihood method was used to analyze the data. Because the χ^2 statistic is widely known to be sensitive to sample size, we also evaluated model fit using the comparative fit index (CFI), and the root mean square error of approximation (RMSEA) that have been recognized to be least affected by sample size (Dimitrov, 2010). According to Hu and Bentler (1999), an acceptable and good model fit are indicated by CFI values above .90 and .95, respectively; and when the RMSEA value is ideally below .06. The most commonly used goodness-of-fit index for invariance tests has been difference in chi square ($\Delta\chi^2$). However, Cheung and Rensvold (2002) and Dimitrov (2010) found that chi-square is highly sensitive to large sample size. They proposed that Δ CFI or Δ TLI are robust statistics for testing between-group invariance models when the sample size is large. They suggested that a value of smaller than or equal to .01 shows that the null hypothesis of invariance should not be rejected.

Results

Factor structure of Teacher's Sense of Efficacy Scale. Three factors were specified and then extracted using EFA. The three factors explained about 49.61% of the total variance. Table 1 shows the pattern matrix of factor loadings. Loadings in bold indicate the assumed loadings and light loadings indicate loadings on non-respective factors. All loadings on the respective factors were significant except items 5 and 8,

Table 1. EFA Pattern Matrix for the Items of Teachers' Sense of Efficacy Scale

	Subscales		
	Student Engagement	Classroom Management	Instructional Strategies
1. How much can you do to get through to the most difficult students?	.654		
2. How much can you do to help your students think critically?	.502		
3. How much can you do to control disruptive behavior in the classroom?		.778	
4. How much can you do to motivate students who show low interest in school work?	.631		

Table 1. EFA Pattern Matrix for the Items of Teachers' Sense of Efficacy Scale

	Subscales		
	Student Engagement	Classroom Management	Instructional Strategies
5. To what extent can you make your expectations clear about student behavior?	.315		
6. How much can you do to get students to believe they can do well in school work?	.555		
7. How well can you respond to difficult questions from your students?			-.663
8. How well can you establish routines to keep activities running smoothly?			-.377
9. How much can you do to help your students value learning?	.560		
10. How much can you gauge student comprehension of what you have taught?			-.482
11. To what extent can you craft good questions for your students?			-.705
12. How much can you do to foster student creativity?	.600		-.336
13. How much can you do to get children to follow classroom rules?		.727	
14. How much can you do to improve the understanding of a student who is failing?	.723		
15. How much can you do to calm a student who is disruptive or noisy?		.772	
16. How well can you establish a classroom management system with each group of students?		.516	
17. How much can you do to adjust your lessons to the proper level for individual students?	.347		-.506
18. How much can you use a variety of assessment strategies?			-.559
19. How well can you keep a few problem students from ruining an entire lesson?		.660	
20. To what extent can you provide an alternative explanation or example when students are confused?			-.647
21. How well can you respond to defiant students?		.484	
22. How much can you assist families in helping their children do well in school?	.638		
23. How well can you implement alternative strategies in your classroom?			-.610
24. How well can you provide appropriate challenges for very capable students?			-.638

Note. Loadings less than .30 are omitted for clarity.

Confirmatory factor analysis (CFA). Fit indexes were adequate but two of the items that measure classroom management had low loadings (items 5 and 8). After removing items 5 and 8 the fit indexes were: $\chi^2_{(206, n = 1193)} = 828.186$, CFI = .930, RMSEA = .050.

Invariance across gender. The three-factor model was then fitted to data after omitting the two items and the fit indexes improved markedly with the multisampling analysis. The fit indexes are shown in Table 1: for M1, the unconstrained model, $\chi^2_{(412)} = 1066.921$, $p < .000$, CFI = .926, RMSEA = .037. With factor loadings constrained to be equal across gender (M2), $\chi^2_{(431)} = 1091.343$, $p < .000$, CFI = .926, RMSEA = .036 (Δ CFI = .000) indicating that factor loadings were invariant across gender. Even the most restricted model

(M5) that assumes invariance in measurement residuals produced an acceptable fit ($\chi^2_{(481)} = 1288.428, p < .000, CFI = .909, RMSEA = .038, \Delta CFI = .002$).

Table 2
Goodness of Fit Indexes of Simultaneous Analysis across Gender

Model	χ^2	DF	P	CFI	RMSEA
M1. Unconstrained	1066.921	412	.000	.926	.037
M2. Measurement weights	1091.343	431	.000	.926	.036
M3. Measurement intercepts	1234.001	453	.000	.912	.038
M4. Structural covariances	1248.781	459	.000	.911	.038
M5. Measurement residuals	1288.428	481	.000	.909	.038
Saturated model	.000	0		1.000	.121
Independence model	9378.517	506	.000	.000	

Note. CFI: Comparative fit index; RMSEA: Root mean square error of approximation.

Factor loadings (range .50 to .76), measurement intercepts, structural covariances and measurement residuals were all substantial and invariant across gender. That is, the structure of self-efficacy is similar in men and women teachers. The average of common metric correlations among the three factors was .713 (see Figure 1) indicating a strong association among the three factors. The structure as proposed by the developer of the instrument is generalizable to settings other than the one it was originated in.

Comparison of Self-efficacy by Gender. Multivariate analysis of variance (MANOVA) was conducted with gender as the independent variable and the three subscales of self-efficacy as dependent variables. The results of MANOVA revealed that male and female Omani teachers don't perceive their efficacy equally in the three subdomains of self-efficacy ($\Lambda_{(3,2217)} = .965, p < .000, \eta^2 = .035$). Table 2 shows the means and standard deviations of each of the subscales by gender. As can be seen in Table 3, female teachers were more efficacious than male teachers in engaging and motivating students, and using teaching strategies; while male teachers were more efficacious than female teachers in dealing with difficult students and classroom management.

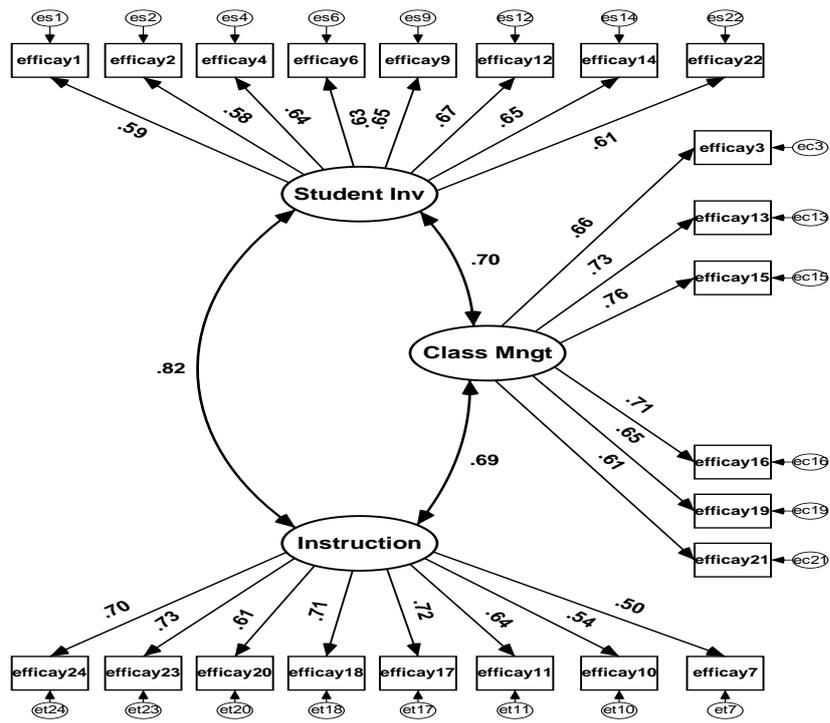


Figure 1. Common Metric Estimates of Factor Loadings and Factor Correlations for the Teachers' Sense of Efficacy Scale.

Table 3
Mean, Standard Deviation, and F Statistics of Differences in Self-Efficacy Subscales
among Omani Male and Female Teachers

SE Subscales	Sex	N	Mean	Std. Deviation	F
Motivating students	Male	899	33.11	5.24	16.11*
	Female	1322	33.95	4.51	
Classroom management	Male	899	24.88	3.68	7.34*
	Female	1322	24.47	3.27	
Teaching & instructional strategies	Male	899	35.98	4.75	17.55*
	Female	1322	36.77	4.08	

* $p < .01$

With these results, the Teachers' Sense of Efficacy Scale can be used to assess teachers' self-efficacy of Omani teachers. Also, based on structure invariance across gender, it is acceptable that mean comparisons on each of the three subscales be made as well as the full scale.

Discussion

This study supports the conceptualization of teacher self-efficacy as a multidimensional construct and shows that the Teachers Self-Efficacy Scale can be a useful measure of the construct for Omani teachers. The subscales were somewhat strongly correlated as found by Skaalvik & Skaalvik (2010). Also, the factor loadings (i.e., the validity of the items) and item intercepts as well as factor correlations were invariant across gender indicating that the items and constructs have similar psychometric characteristics. As a result of similarity in the instrument, subscale means and even correlations can be compared across gender.

Female teachers showed more efficacies in engaging students and in teaching strategies while male teachers believed they were better in managing the classroom. This result is not surprising in the Omani society since female teachers who join the profession are of diverse academic background and those who score high in high school. In comparison, male teachers who join the profession are those who were not able to enter other professions such as medicine, engineering or business. These professions are not easily accessible to females in the Omani society. In fact, male teachers refrain from entering the teaching profession, while high achieving females opt to the teaching profession. Socially, teaching is more acceptable for females than other professions such as medicine, engineering, business and nursing. Families have a strong saying in the future of girls and sometimes decide the kind of study the girl should pursue. Female teachers in Oman report less absenteeism than male teachers and are less burned out than male teachers. They teach more classes than male teachers.

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The Development of a Self-Assessment Model by Using Empowerment Evaluation for Accountability of Maintaining Senior Professional Academic Status of Teachers under the Office of the Basic Education Commission



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Subtheme 3 : Leading and Managing Quality Schools

Abstract

The purposes of this research were 1) to create model of self-assessment by using empowerment valuation, and 2) to evaluate the quality of a self-assessment model using empowerment evaluation. There were 3 stages of creating a self-assessment by using empowerment evaluation; step 1 drafting the components of a self-assessment model, step 2 drafting indicators and evaluation criteria, and step 3 checking the quality of the assessment model. The three types of models were used as the instruments of this research. They consisted of: the interview with the directors and teachers, direct checks-oriented content of indicators and criteria, and the quality of the evaluation itself. The instrument quality was examined by experts and the perception of teachers for the appropriation and the possibility.

There were two phases procedure for the quality evaluation of a self-assessment by means of empowerment evaluation. Phase 1 The trial of a self-assessment model on 20 teachers who have senior professional level. They were asked to evaluate themselves according to 4 steps of empowerment evaluation: (1) Taking Stock, (2) Setting Goal, (3) Strategies Development, and (4) Documenting Progress. For phase 2 Assessment model, the instruments were used in this phase include a knowledge test, interview, focus group, and self-assessment model.

This research will lead to a model of self-assessment by means of empowerment evaluation which is helpful for the teachers to create knowledge related to teaching-learning, developed themselves continuously and have responsibilities to maintain academic standing. The results, now, are in for the educational process.

Keywords: Academic Status, Self-Assessment, Empowerment Evaluation

Rationale for the Study

The results for the first decade of educational remodel (1999-2008) were summarized by the Office of the Education Council. The fact on the issue of education remodel is that the quality learners development in all levels of education also did not meet the target. By the level of basic education, including major national test results showed that the quality of the students is not satisfactory. Data from the Ordinary National Achievement Test (O-NET) was found that in the year 2009, the average score of Mathayomsuksa 3 based on five course core subjects; Thai, social studies, English, mathematics, and science were 35.35, 39.70, 22.54, 26.05, 29.06, respectively. It is clearly that average score was less than 50 percent in all subjects. For this reason; therefore, education remodel in two decades (2009-2018) emphasis on the development of quality education, and the important factor is the quality of teachers. Most teachers are the bureaucracy, so they have stable status. They do not realize the importance of self development. Therefore, the development of quality education must develop teachers regularly and continuously according to being good teachers and good working.

A way to develop teachers is to develop their academic standards to fulfill academic knowledge competence. Academic status of the teachers was divided into 4 positions; professional, senior professional, expert, and senior expert. The request for the academic standing or moving does not obligate. But the teachers are academic teachers will gain more income not include salary. However, the law requires that teachers with academic status must be evaluated periodically. Teachers must be prepared and evaluated as such. Number of teachers and education personnel in the Office of the Basic Education Commission on 31 December 2009 was found that those with the academic status is 83.78 percent, which the government had to spend more about ten thousands million baht, but not reach the quality of learning achievement, as mentioned above.

The problems of learning quality may be a part of the process of academic status, such as teachers spend more time on writing scholarly works to promote position themselves. Promoting academic teacher was found that the teachers copied and hired someone else to do work to lift up academic status. As well as taking the advantage from the academic status with a group of fellow teachers. Teachers who want high academic status had to pay more. Assessment expertise to move the academic status of teachers is still a problem. Such the problems are mainly caused by the postponement as academic specialists and teachers who have demonstrated exceptional academic expertise to the quality, do not achieve the academic standards.

Development of teachers, especially teachers who have senior professional level, provide quality academic standards and academic status. To develop teachers, the concept of David Fetterman on employment evaluation by 4 steps was used as follows: 1) Data Validation (Taking Stock) by self-assessment 2) targeted to improve or develop (Setting Goal) 3) determine how operations, that will lead to the fulfillment (Strategies Development), and 4) a document or piece of work that shows the progress (Documenting Progress).

Self-evaluation of teachers by means of empowerment evaluation is useful and affect teachers to create knowledge related to teaching and learning, being self-development continuously, and has responsibility for holding the status of senior professional level.

Development of self-assessment by means of empowerment evaluation ; therefore, is essential for teachers to improve the quality of students and improving the quality of education. However, at the present, there is no self-assessment

model in which teachers can be used to assess themselves in order to obtain immoderation leading to self-improvement and development. The researcher, therefore, is interested in doing this research.

Purpose of the research

The aim of the study is to develop a self-assessment using empowerment evaluation to assume responsibility for the senior professional level. The specific objectives are:

- 1) To propose the self-assessment by means of empowerment evaluation.
- 2) To assess the quality of a self-assessment by means of empowerment evaluation.

Procedure

The procedure is divided into two phases.

Phase 1 Proposing the self-assessment by means of empowerment evaluation.

Phase 2 Assessing quality of self-assessment models by means of empowerment

evaluation.

Phase 1 Proposing the self-assessment by means of empowerment evaluation.

Three main steps are permodeled.

Step 1 Preparing component of the self-assessment model.

1. Study theory, principle, criteria, academic status evaluation, self-assessment and empowerment evaluation of documents and related research.

2. Interview school administrators and teachers with academic senior professional level to obtain immoderation about the current state of assessment for maintenance the academic status for senior professional level.

2.1 Population and sample

School administrators and teachers with academic senior professional level in Chonburi and Rayong, totally 20, were selected by school size; large, medium and small.

2.2 Instrument

The two set of interviews were used as the instruments of this research. They consisted of: the administrator interview , and the teacher interviews.

2.3 Data Collection and Data Analysis

Administrators and teachers were interviewed at the school or by appointment. Data were analyzed by content analysis.

3. Analyze the content of the self-evaluation of data acquired from various sources, such as research and related models of self-evaluation of teachers based on the model of Bailey (Bailey's Model of Self-assessment cited in Whitfield 2000: 8) which found that the key components are the importance of self-assessment, the principle of self-assessment, the purpose of self-evaluation, target of evaluation, indicators and criteria, procedures, and feedback.

Step 2 Creating a self-assessment model.

1. Draft the self-empowerment evaluation model, using a model that incorporates the key components of the analysis in step 1.

2. Draft the indicators and evaluation criteria.

a. Study various documents related to academic assessment. It has been evaluated that three areas of the discipline, moral and professional ethics. The efficacy and permodelance.

b. Draft the indicators and evaluation criteria that are consistent with the assessment of the third aspect, which consist of indicators and criteria that have been prepared by Office of the Teacher Civil Service and Educational Personnel Commission and the researcher has prepared more.

Step 3 Checking the quality of the self-assessment evaluation model.

1. Indicators and criteria was examined by experts for content validity.

1.1 Population and sample

Use the consideration of nine experts

1.2 Instrument

The content validity model of the indicators and evaluation criteria. It was created by follows:

1.2.1 Take the draft indicators and evaluation criteria from the second stage of the operation to create the draft of self-assessment by using empowerment evaluation.

1.2.2 Construct the content validity of the self-assessment by means of empowerment evaluation, which reviews the indicators and criteria for compliance, not sure, and not confirm.

1.3 Data collection and Data analysis.

The content validity instrument quality was examined by experts for content validity. The experts were requested to send back the completed questionnaires to the researchers within 2 weeks. Data were analyzed by using the method of calculating the IOC with the criteria for the selection of indicators and threshold values from 0.50 up to the IOC.

2. Monitoring the quality of the self-assessment model by means of empowerment evaluation by the standard of propriety and feasibility of the expert.

2.1 Population and sample

Using 9 sample of the expertise. This is the same set of experts to examine the content validity.

2.2 Instrument

The inspection of a self-assessment by using the empowerment evaluation and the manual of self-assessment were used as the instruments.

2.2.1 Take the draft of self-evaluation model to create the quality of self-assessment by means of empowerment evaluation. The questionnaire was a five rating scale by commenting on the self-assessment model.

2.2.2 Create the guide for using a self-assessment by means of empowerment evaluation.

2.2.3 Bring the quality of the self-assessment model and guide for the use of self-assessment models to advisors to consider the research and revised the instructions before using.

2.3 Data Collection and Data Analysis.

The quality of the self-assessment model and guide were examined by expert. The experts were requested to send them back within 2 weeks. Data were analyzed by using the mean and standard deviation with the criteria ranging from 3.50 up.

3. Monitoring the quality of the self-assessment model by means of empowerment evaluation according to the standard of propriety and feasibility of the teachers as perceived by the teacher with the senior professional level. The processes were as follows:

3.1 Population and sample

Teachers, totaled 30 persons, with senior professional level were selected by the group that was distinguished clearly.

3.1.1 Fifteen Teachers with senior professional level who have outstanding permodelance as perceived by the sequencing of the relevant supervisors, school administrators, heads and teachers in the same subject matter which were determined by good permodelance, commitment and responsibility for the operation about 15 people.

3.1.2 Fifteen teachers with senior professional level who have normal permodelance.

3.2 Instrument

The check list of the quality of the model by using a self empowerment evaluation manual which was the same set of experts consideration.

3.3 Data Collection and Data Analysis

The quality of the self-assessment models were sent to 30 sample by mail and they were requested to collect and send back the completed questionnaires to the researchers within 2 weeks. The statistical methods used were mean and standard deviation, and the criteria used the average value from 3.50 up

Phase 2 Assessing quality of self-assessment model by means of empowerment evaluation. There were 2 steps as follows:

Step 1 Trail the model

1.1 Select the teachers with senior professional level about 10-20 teachers in a large size school to be a case study.

1.2 Try out a self-assessment by means of empowerment

1.2.1 Preparation

1) Prepare the manual of using self-assessment model by means of empowerment evaluation in order to make sample understand the structure and main point of self-assessment model.

2) Hold a meeting with teachers in trial unit to clarify understanding, such as project objectives, procedure, and benefits of such projects, etc.

3) Have a pre-test done to test the teachers' knowledge and understanding of the self-assessment by means of empowerment evaluation.

4) Arrange training course to provide knowledge on how to assess their own responsibilities in maintaining academic senior professional level and evaluate empowerment model include promoting teachers to study the manual of self-assessment model.

1.2.2 Implementation

1) Teachers were asked to take stock by self-assessment by means of empowerment in order to aware of their strengths and weakness of themselves.

2) Teachers were requested to set targets for improvement or development (Setting Goals) using assessment results obtained from 1) and they could select to update or develop one of the master pieces.

3) Teachers were requested to determine how implementation will lead to the fulfillment (Strategies Development) to improve or develop work as defined in article 2 and followed the action planned.

4) Teachers were requested to present the work in accordance with the goals and strategies (Documenting Progress), which demonstrated progress in improving or developing their own.

1.2.3 Conclusion

1) The research progress in the permodelance was considered by teachers to examine the results with the baseline data.

2) The teachers were requested to do the post-test.

The researcher, acted as external assessors, was responsible for training, facilitation and liberation for the duration of the experiment.

1.3 Instrument

1.3.1 The cognitive test on self-assessment was used as the instrument.

The creation process was as follows:

1) Creating a cognitive test on self-assessment.

2) The instrument quality was examined by 3 experts for content validity. The pilot study of the instrument was implemented by the teachers who did not the sample for the discrimination and reliability.

1.3.2 The self-assessment by means of empowerment. The creation process was as follows. Improved the content validity check list of the indicators and criteria for self-assessment by means of empowerment according to experts' advisory. Then, implemented with the sample.

1.4 Data Collection and Data Analysis

1.4.1 To test the knowledge and understanding of the teachers in the process of preparation and completion, repeat the experiment. Data were analyzed by mean, standard deviation, and compared with t-test.

1.4.2 The teachers were requested to assess themselves by using the self-assessment by means of empowerment evaluation (taking stock). The researcher conducted a self-assessment through the program that can process evaluation in which facilitate teachers to know their results soon. Data were analyzed by percentage.

Step 2 Evaluate the self-assessment model.

The quality self-assessment model by means of empowerment evaluation was evaluated in the feasibility, propriety, utilities, and accuracy.

2.1 Instrument

The quality of a self-assessment model by means of empowerment evaluation.

2.1.1 The questionnaire concerning feasibility, propriety and utilities of self-assessment model by means of empowerment evaluation was created with five rating scale.

2.1.2 The questionnaire was modified to use with teachers who participated in the research.

2.2 Data Collection and Data analysis

The teachers were requested to do the questionnaire at the end of the trial by using the pattern of self-assessment, were interviewed and focus group. Data were then analyzed by mean and standard deviation, content analysis.

Research Results

The self-assessment with key components was modeled including the importance of self-assessment, principle of self-assessment, the purpose of self-assessment, target of evaluation, indicators and criteria, procedures, and feedback.

Discussion of the Results

The self-assessment model that includes such the components will affect teachers to create knowledge related to teaching-learning, develop themselves continuously, and have responsibilities to maintain academic standing. The results, now, are in for the educational process.

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Governance towards Goal Achievement: A Suggested Reading of Curriculum for a School Leadership Training Program

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Abstract

The present study focuses on the goals for a school leadership education in Sweden. Since 2009, all appointed school leaders in Sweden are required to participate in supplementary training in leadership. In Sweden, the government and the National Agency for Education in collaboration define the main content of the education, which is carried out by universities. A didactic model by Jank and Meyer (2010) was utilized for the rereading of official documentation on reforms and directives of a higher education program offering leadership education for principals. Three areas of edification were discerned: 1) gaining knowledge and skills concerning legal issues – particularly pupils' rights, 2) acquiring a deeper insight into the quality standpoint, focusing on pupils reaching the goals, and 3) developing a leadership that promotes a learning environment in which pupils are able to reach the goals. The results of the reading were further discussed using a model from Persson, Andersson, and Nilsson Lindström (2006), in which school culture and personal relations are crucial to successful principals. Conclusively, it is conceivable that the reconstructed curriculum for principals is encouraging a primary alliance with active pupils and a secondary alliance between principal and teachers disposed to change, thereby facilitating the proceeding toward a "knowledge culture school".

Keywords: National School Leadership Training Program, knowledge areas, goals

Introduction

When a national school leader program is constructed it can be perceived, in a positive way, as acknowledging the important role of the school leaders and supporting development of knowledge. It could also be perceived as a lack of knowledge among the school leaders and wish to control the knowledge they acquire.

According to Bush (2013) there is a minority of countries where specialized preparation for the principalship is offered, examples are Canada, France, Singapore, South Africa and the USA. That is, most governments do not require special training before or after taking up their position.

Sweden is an example where a specialized program has been offered for school leaders since some time. When the government in Sweden prepared for a new, compulsory principal program during 2008 and 2009 they referred to that the current head master program was not equal over the country and that the content of the program did not reflect the assignment for the principal, described in the Education Act, statute for respective school

form, and curriculum for compulsory and non-compulsory school. This was the background when the government proposed what they described as a new state regulated and equal principal program (Utbildningsdepartementet, 2009).

Even though not underlined, the government seems to indicate that all principals are not well informed. It could also be an indication that the local municipalities are not fulfilling their responsibility for developing school activities aiming at reaching the national goals. As Persson, Andersson and Nilsson Lindström (2006) phrase it, “From having formerly filled a largely administrative function, the headmaster now is the new primary agent of change in schools.” (ibid, p. 56).

Since 2009 all principals in Sweden have to participate in further education for leadership. It is not a qualification program for becoming a principal, as the principals already has a position. In 2009 865 principals, but also managers for preschools, started participating in the program. In February 2012 there were 3 619 active school leaders in the program. The program lasts for three years and the first groups were examined autumn 2012 Skolverket, 2013).

The research question in this study is in how a curriculum for leadership for principals in Sweden is constructed on a national level and possible consequences concerning local relationships.

Earlier studies about principal’s knowledge and skills

In this section the description will show that there are several ways of understanding both what knowledge and skills that a principal needs and how and when this knowledge and skills should be acquired.

The expectations of different stakeholders can be important and used to inform the curricula for the principal’s program. Persson, Andersson and Nilsson Lindström (2006) have studied perceptions of different stakeholders (administrators, teachers, pupils and parents) concerning what makes a principal successful.

The administrative directors defined a successful principal as a person loyal to decisions from higher level, which can manage scarce resources, can make decisions within an organization that is target- and finances driven and implements the municipal school administration’s ideas regarding school development. The teachers understood a successful principal as a person who has experiential roots in everyday life of school, takes part in school activities, support teachers, show respect for professional autonomy, is a colleague of equal merit and has a vision. The pupils understood a good principal (notice the change from successful to good) is a person that is visible in the school, is a friend and crates a good school environment. The parents understood a good principal as a person who takes responsibility for the working environment, clear, sensitive, understands pupil’s needs, committed to the district and competent (ibid).

The expectations for the different stakeholders were summarized in three tension fields where the principal acts in a cross-pressure. In the current situation the principal is no longer the first among equals (*primus inter pares*), but is the last among superiors (*ultimus inter superiores*). The administration expects the principal to be a representative for the employer. This was also underlined in a bill from mid 80s about school management training program where it was underlined that the principal is a representative for the employers. The principal becomes a middle manager. The second tension field is between

pupils and adults. The pupils want to have a visible principal, friendly and responsible for creating a good school environment. The last tension field is between change and continuity. With changes, reforms in education the continuity in schools is decreasing and change is increasing. This change is supported by administrators (who wish goal attainment) but not necessary by parents (who value safe schools) (ibid).

One way of dealing with this cross-pressure is, according to Persson, Andersson and Nilsson Lindström (2006) is to create alliances. They use a model by Schein (as cited in Persson, Andersson and Nilsson Lindström, 2006) concerning organizational culture perceived as a result of external and internal adaptation. Based on the results from the stakeholders; Persson et al. created a model with different possible alliances. In a coercive culture school there is a primary alliance between principal and teachers, and a secondary alliance between principal and parents. There is an alliance again municipal school administration. In the career culture school there is a primary alliance between principal and career oriented parents and a secondary alliance between principal and specialist teachers. There is an alliance towards those pupils who do not reach the goals. In the knowledge culture school there is a primary alliance between principal and active pupils, and a secondary alliance between principal and teachers disposed to change. There is an alliance towards change-resistant teachers. They also suggest that these alliances are crucial for the different principals as the alliance partners are the ones that promote the principals. The alliances are the basis for the success for these principals. In the future these alliances can be challenged if the school culture is no longer basis for the success.

The tension fields that Persson et al are discussing could also be an arena for delaying reform and other development. School leaders are perceived as change agents and in creating the change they also have to handle resistance. Starr (2011) carried out a study where school leaders were asked about learning required to conduct their role. The result showed that all principals had experience resistance when initiating major school change. Starr found that it was possible to interpret two underlying purposes for those who resisted based on the principals answers: to block proposals for change or to undermine the authority of key change agents. It was also clear that principals were more understanding of resistance if the change was externally initiated. The experienced principals commented that it was easier to get decisions accepted in the past. Now there are many stakeholders, higher expectations and the principals saw a growing culture of (formal) complaint.

What actually is expected from a school leader could be country specific or more universally desired. In a study in 62 cultures Den Hartog et al. (1999) found attributes that reflect charismatic/transformational leadership and were accepted universally; such as motive arouser, foresight, encouraging, communicative, trustworthy, dynamic, positive, confidence builder, and motivational. Others were perceived as depending upon culture; such as enthusiastic, risk taking, ambitious, self-effacing, unique, self-sacrificial, sincere, sensitive, compassionate, and willful. Den Hartog et al argue that it is important to further study the transformational versus transactional leadership in different countries. The culture/country dependent attributes need to be further discussed.

Some education programs are aiming at creating learning environment so that a person can be qualified to apply for a position as a school leader. Smith (2012) describes a Principal's Qualification Program in Ontario province in Canada and how it was revised after several dialogues with stakeholders. The program is designed by Ontario College of Teachers (OCT, a self-regulatory body for 235 000 members of the teaching profession in the

province) and that body is also recording when a teacher has passed the program. The first two parts of the program are informed after this discussion and also supported by educational research. The third part is Leadership Practicum. The program comprises 310 h.

The design for the program is based on two documents: *Ethical Standard for the Teaching Profession* and the *Standards of Practice for Teaching Profession*. These documents are also developed after dialogue with stakeholders and are a basis for a collective identity and a core of teacher professionalism. Organizers of the program have to use the Principal's Qualification Program Guideline and get accreditation from OCT before offering the program. After dialogue with different stakeholders (teachers, students, principals, parents, the public and several others) the suggestions were analyzed by a provincial writing team (ibid).

What emerged as important principles to guide the revised program were ethics, diversity and inclusion. The stakeholders emphasized the trust that the principal has to enhance and sustain trust such as sharing information, participate in dialogue and show the direction of the leadership, all aiming at supporting the student to reach their potential. Diversity and inclusion caused a discussion about certain groups not getting their perspectives into the program content. In the end the revised program guidelines included English, French, First Nations, Métis, Inuit and Catholic perspectives. The role of the principal was also changed from being viewed as a managerial role to an instructional ethical and knowledgeable educational leader. Five leadership domains emerged: Setting Directions, Building Relationships and Developing People, Developing the Organization, Leading the Instructional Program and securing Accountability. In summary, this education for qualification is driven by stakeholder's interest and professionalism (ibid).

Method

The chosen document to study is the goals that the National Agency for Education has written for the National School Leadership Training Programme (Skolverket, 2009). The goals are elaborated and could be perceived as a curriculum. With help of a didactic model created by Jank and Meyer (2002/2010) I will present the goals and it will be visible why I suggest that it could be perceived as a curriculum.

I will also use the model that Persson, Andersson and Nilsson Lindström (2006) created. Their starting point was that the expectations from different stakeholders upon school leaders could be summarized in three tension fields where the school leader acts in a cross-pressure. One way of dealing with this cross-pressure is to create alliances. I will reread the 'curriculum' and analyze which stakeholders the school leaders seek alliance with.

The National Principle program

From a didactic perspective a curriculum is often written in a certain 'genre', there is usually some kind of general motivation why the knowledge is needed, what knowledge is needed and how it should be learnt (Jank and Meyer, 2010). This is also how I present the program, starting with the motivation, the 'why'.

It is the National Agency of Education that is formulating the goals and they also give reasons why the school leader program is necessary. In Sweden the education is centrally regulated and governed by the curricula (such as for preschool, compulsory school and non-compulsory school) and in this system the school leader is a key agent. The school leader

shall provide structure and content to the work of the school and is responsible for the results achieved by the school, and also for follow up and evaluation in relation to the national goals. There are no corresponding directives for preschool managers, but they are also considered as key agents for the goals in preschool, they are also invited to the program. The aim with the program is to provide the school leaders with the knowledge and skills they require to manage their responsibilities and achieve the goals.

Then I continue with the '*what*' as there are also directives for the content of the program, what areas of knowledge that should be covered. There are three areas of knowledge, and they have certain goals. The goals are described in three sections, as what the school leaders should know and understand, their skills and abilities and assessment ability and approached.

First of all they should study legislation on schools and the role of exercising the functions of an authority. Here the laws and ordinances are crucial in relation to national goals.

Secondly, management by goals and objectives should cover measures for promoting quality, also required for the school to achieve the national goals.

Lastly, school leadership should cover how the work should be managed based on the national tasks of the school leaders set out in the steering system, in line with goal attainment.

When the school leaders have completed the program this goal should be reached:

..they shall have the knowledge and skills required to manage the work of realizing the goals of the preschool, leisure time centre, the preschool class, school or adult education, as well as fulfilling the tasks in accordance with the provisions specifically laid down for head teachers in the legislation. This applies to both municipal and independent schools. (Skolverket, 2009, p. 5)

There are also directives of *how* the knowledge should be acquired. The school leaders should participate in a course at a university and the education is at advanced level. They should participate during three years as it is a part time education. Every knowledge area comprises 10 higher education credits, in total 30 higher education credits. All three knowledge areas should be examined by the higher education institutions providing the training program.

The National Agency of Education asked higher education institutions to give a bid for this education. As there are no strong directive for '*how*' the higher education institutions had to describe clearly how they were going to carry out the education in a bid. There were several bids and in the end six of them were accepted. In general the education is carried out during 2-3 day meetings, most often in a conference hotel, with work in between during the three years.

The directives for the school leadership program are similar to the design for the curriculum for preschool, compulsory school and non- compulsory school. There is a motivation to why the '*area*' is needed, there are certain knowledge areas, there are goals, but how it should be carried out is for the teachers to decide (even though there is a certain frame). That is, the didactic part here is not why and what, but how the learning situation should be created.

Discussion

Earlier a model from Persson, Andersson and Nilsson Lindström (2006) was presented where the school leaders could create alliances to handle a complex working situation. In this case the goals for the National School Leadership Training Program can be perceived as a focus and thereby possible alliance with students. The school leaders should have knowledge and skills concerning legal document –especially children’s and pupil’s rights, deeper insight about quality issues aiming at pupils reaching goals, and leadership supporting a learning environment where the pupils can reach the goals. A successful school with high quality is where the pupils are reaching the goals. This creates a culture, according to the model from Persson et al., which can be perceived as a knowledge culture school with a primary alliance between principal and active pupils, and a secondary alliance between principal and teachers disposed to change. This alliance and culture is a possible interpretation of what consequences there can be of the goals for the National School Leadership Training Program.

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Development of a set of Assessment Tests for Mathematics Gifted of Mathayomsuksa IV students



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Abstract

Development human resources are the most important development in a country, especially Development of Mathematics Gifted Students is interesting in many countries; therefore the development of Mathematics competent Tests for Mathayomsuksa IV Students is used to classify the Mathematics Gifted Students in the present time. In generally, mathematics test and grade point average are used in the identification of Mathematics Gifted Students. So this makes error, the students you get not the Mathematics Gifted Students but also the bad results to the students and the nation in the future.

The Objective of the Development of a set of Assessment tests for Mathematics Gifted of Mathayomsuksa IV students

- 1. To make and develop a set of Assessment tests for Mathematics Gifted of Mathayomsuksa IV Students.*
- 2. To study a quality of a set of Assessment tests for Mathematics Gifted of Mathayomsuksa IV Students.*
- 3. To study an efficient of a set of Assessment tests for Mathematics Gifted of Mathayomsuksa IV Students.*

A set of Assessment tests for Mathematics Gifted of Mathayomsuksa IV Students.

- 1. Nomination Forms by the teacher for Mathematics Gifted of Mathayomsuksa IV Students.*
- 2. Mathematics Ability tests for Mathematics Gifted of Mathayomsuksa IV Students.*
- 3. High Level Thinking tests for Mathematics Gifted of Mathayomsuksa IV Students.*
 - 3.1 Creative Thinking tests for Mathematics Gifted of Mathayomsuksa IV Students.*
 - 3.2 Critical Thinking tests for Mathematics Gifted of Mathayomsuksa IV Students.*

Summary of the study: To get a set of Assessment tests for Mathematics Gifted Mathayomsuksa IV Students which is qualified and efficient in the Mathematics Gifted Students classification

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Keywords: Gifted Students, Mathematics Gifted Students, Nomination Forms, Mathematics Ability tests, High Level Thinking tests, Creative Thinking tests, Critical Thinking tests

Introduction

By definition, gifted / talented students are referred to as intelligent individuals who are obviously clever in one of or several fields like; language usage, visual art, performing arts, music, sports, and creative thinking skills when compared to other children of the same age. (U.S.Department of Education, 1988; Susan k. Johnsen, p. 2-3; Office of the EducationCouncil, 2005 ; Anurutwong, 2012) For many countries, the top priority or the so-called country agenda is to develop and encourage talented students, especially the mathematically talented students. This is because Mathematics is a very important base for other disciplines/ like science and for like industry, agriculture and engineering. Thus, Mathematics involves people from all walks of life in some way.

To identify who is mathematically talented, a suitable instrument is required made and to be used to test the mathematically talent students' abilities. At present, the learning achievement and placement scores are taken into account when distinguishing the mathematically talented students from non-mathematically talented students. As it happens, those who acquire high scores from such tests will be identified as talented students and treated as such identifying criteria are erroneous and unreliable as the students selected and identified as talented consist of the mathematically talented students and non-mathematically talented ones. Similarly, the students who failed to get selected are sometimes the mathematically talented students. Such erroneous identification the adversely affect the students themselves and, at the same time can cause serious damage to the countries future. Therefore it is important that, suitable instruments and means should be used to identify the mathematically talented students, not only their average scores or the scores from their knowledge tests should be taken into consideration. To achieve this goal, the researcher must had a number of ways to develop a set of assessment tests for all students in order to distinguish the mathematically talented from the non-mathematically talented students, This will reduce the erroneous and unreliable identification/selection processes to the minimum or if possible, to none at all.

A set of assessment tests to distinguish the mathematically talented students consists of the following:

1. Nomination Forms by the teacher.
2. Mathematics ability tests for the mathematically talented Mathayomsuksa IV students.
3. High-Level Thinking tests for the mathematically talented Mathayomsuksa IV students.

The purposes for the development of a set of assessment tests for the mathematically talented students

1. To develop a set of assessment tests for the mathematically talented students

2. To study the quality of a set of assessment tests for the mathematically talented Mathayomsuksa IV students.
3. To study the efficiency of a set of assessment tests for the mathematically talented Mathayomsuksa IV students.

How to prepare the set of Assessment tests for the mathematically talented students

1. Nomination Forms by the teacher.

Generally, the nomination form for the mathematically talented students is a kind of evaluation process used by teachers to test the quality of the mathematically talented students. Such qualities were derived and digested from the analysis and synthesis of various concepts, theories and research studies related to the mathematically talented students.

Below are the 20 qualities of the mathematically talented students in the Nomination form.

1. Be able to learn numerals, mathematic symbols faster than other students of their age
2. Be able to give logical reasons of a higher standard than others
3. Be able to make a calculation faster and more precisely than others
4. Be able to identify various mathematic correlations and connectivities of both concrete and abstract forms
5. To possess more outstanding mathematic achievement scores than other students of their age group
6. Be able to efficiently solve complex mathematic problems
7. Have dogged determination to learn mathematics successfully
8. Have a habit of finding new and quicker ways to solve mathematic problems
9. Like to solve complicated and challenging mathematic problems
10. Be able to adjust their views under any circumstances
11. Be able to think creatively, based on mathematics
12. Be able to use mathematic judgment
13. Be able to analyze mathematic problems in a rapid and correct manner
14. Be able to see things in multi-dimensional ways
15. Like to work independently or in a small group, rather than in the biggest group
16. Like to ask cause-and-effect questions
17. Be able to reasonably criticize all manner of subjects/ topics
18. Be able to make a conclusion of mathematic correlations in a rapid manner
19. Be able to solve mathematic problems in many ways, beyond other people's expectations
20. Be able to learn and work on mathematics for a long period of time without boredom.

2. Mathematics Ability tests for the mathematically talented students

Mathematics Ability tests for the mathematical students are those designed to test or evaluate the mathematically talented students' abilities to solve mathematic problems. The Mathematics ability tests were made based on the definition from various theories as

regards the mathematically talented students, to make of achievement tests, guidelines for evaluation and research studies related to make of mathematics ability tests. The scope of the set of assessment tests are confined to the contents in the curriculum of the Basic Education Commission B.E. 2551, concerning numerals, procedures, measurement, arithmetic, geometry, data analysis, and probability. According to the set of assessment tests, the mathematically talented students will be measured in 3 different aspects; analyzing ability, evaluation and creativity in mathematics. The set of assessment tests were designed to measure the students' abilities in terms of memorization, comprehension and application.

3. High-Level Thinking tests for the mathematically talented students

High-Level Thinking tests consist of 2 main parts:

PART 1 Mathematic creativity tests

The mathematic creativity tests are used to measure the mathematically talented students' creative abilities, using; pictures, diagrams, shapes, symbols, numerals, statements and mathematical environment as a frame of writing questions. The mathematically talented students are supposed to use their natural abilities, based on Guilford's doctrine (1959, 1967, 1988) concerning divergent thinking, to write their own answers, all of which are the products of contents in the question provided. At this stage, Paul Torrance's creativity (1950) is used to determine a level of the mathematically talented students which consist of 4 main categories:

Category 1 Fluency test

Fluency is the measurement of the students' abilities to find as many different answers as they possibly can. Gordon's criteria: 1 point for 1 answer.

Category 2 Flexibility test

Flexibility is used to test how many answers they can find, all of which can be classified into many types or groups. A rule in each group or type provided can be used. Criteria: 1 group/type per 1 point.

Category 3 Originality test

At this stage, the students are tested on how well they can find a new answer which is different from their counterparts using the problems or situations provided.

Category 4 Elaboration test

This kind of test is used to test the students' abilities to find an elaborate answer unnoticed by others or beyond others' expectation, using the problems provided.

Grading criteria for originality and elaboration:

More than 12 percent of the answers identical to others' = 0 point

6 – 11.99 percent of the answers identical to others' = 1 point

3 – 5.99 percent of the answers identical to others' = 2 point

1 – 2.99 percent of the answers identical to others' = 3 point

Less than 1 percent of the answers identical to others = 4 point

PART II Mathematics Critical Thinking test

This type of a test is normally employed to measure the mathematical critical thinking of the students, using questions in the form of statements or under a variety of mathematic circumstances. Similarly, the mathematics critical thinking test is derived from

the synthesis of Dressel's Creative Thinking Process doctrine.(Dressel, 1957; Watson and Glaser, 2011; Sternberg & Baron, 1985 ; Ennis, 1987 ; Anurutwong, 2012) The test is simply divided into 4 main categories:

Category I: Induction and Deduction Reasoning

The tests in this category are designed to measure the ability to make general conclusions or to find a result of the cause provided or vice versa.

Category II: Recognition of assumption

This type of tests is designed to test the ability to make a conclusion or to write a hypothesis of problem solving or of the proof of statements/ situations provided.

Category III: Interpretation/ Translation

This kind of tests is aimed to test the ability to make a distinct conclusion or to interpret the data, statements, situations, using the students' own ideas/ judgment.

Category IV: Mathematic problems solving

These tests are designed to test the ability to comprehend a problem, to find a way to solve a problem by making a comparison, analyzing, synthesizing, assessing a problem, using their own knowledge, memorization, understanding, application and experiences.

Procedures

As mentioned earlier, Development of a set of assessment tests for Mathematically talented Mathayomsuksa IV Students involve 3 stages;

Stage I This is a stage of developing of a set of assessment tests for the mathematically talented Mathayomsuksa IVstudents. The sample are employed included 180 non-mathematically talented Matthayomsuksa IV students and 180 mathematically talented Mathayomsuksa IV students, 360 in total. The statistics used to analyze the data included the distribution of frequency, percentage, mean, standard deviation, difficulty index, discrimination power, Cronbach's Alpha coefficient, Kuder-Richardson method,correlation coefficient and cut-off score.

Stage II: The determination of the quality of a set of assessment tests for the mathematically talented Mathayomsuksa IVstudents.

The sample are employed at this stage are different groups of students, 90 of whom are non-mathematically talented students and 90 mathematically talented students from the schools for the mathematically talented students, 270 in total. The statistics used to analyze the data included the distribution of frequency, percentage, mean, standard deviation, difficulty index,discrimination power,Cronbach's Alpha coefficient, Kuder-Richardson method and correlation coefficient.

Stage III: The determination of the efficiency of a set of assessment tests for the mathematically talented Mathayomsuksa IVstudents.

This group of students is also different from those mentioned at stage I and II. The sample are employed at this stage include 45 non-mathematically talented MathayomsuksaIV students, 45 mathematically talented Mathayomsuksa IV students and 45 mathematically talented students from the schools for the mathematically talented students, 135 students in total. The statistics used to analyze the data included the distribution of frequency, percentage, mean, standard deviation, difficulty

index, discrimination power, Cronbach's Alpha coefficient, Kuder-Richardson method, correlation coefficient.

The result of the research

Now the result of the research is collecting the data.

Discussion

The set of assessment tests for the mathematically talented Mathayomsuksa IV students consist of the following:

1. Nomination Forms by the teacher.
2. Mathematics ability tests for the mathematically talented Mathayomsuksa IV students.
3. High-Level Thinking tests for the mathematically talented Mathayomsuksa IV students.

Currently, the instruments used to select or identify the mathematically talented students are their own average scores of 3.00 or more and the scores acquired from various tests conducted by teachers as required by the curriculum. Basically, there are several characteristics to be instilled in the mathematically talented students. Unfortunately, the selection or identification of the mathematically talented students mainly involves purely knowledge learnt in class, which results in erroneous selection/ identification process. To get rid of that problem, the set of assessment tests for the mathematically talented students have been improved and developed in order to cover the whole area of characteristics expected of the mathematically talented students. As for The nomination form for the mathematically talented students, there are also designed to cover the whole area of characteristics expected of the mathematically talented students, the results of which correspond to the authentic assessment as the teachers are in proximity to the students. The mathematics ability tests are designed to test the students academically while the high-level thinking tests are used to test the students' creativities and critical thinking, one of the characteristics expected of the students. Therefore, it can be said that the set of assessment tests for the mathematically talented Mathayomsuksa IV students are improved and developed to cover all of the characteristics expected of the mathematically talented students. Finally, it is believed that the aforementioned tests are the instruments available to select or identify the mathematically talented students.

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Development of Internal Quality Assurance Systems by Using Knowledge Management and Empowerment Evaluation for Small Schools under Jurisdiction of Office of the Basic Education Commission



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Abstract

This research aims to: 1) explore the current conditions, problems, and requirements in handling the internal quality assurance in small schools under The Office of Basic Education Commission 2) develop the internal quality assurance system based on knowledge management and empowerment evaluation for small schools to be under The Office of Basic Education Commission. The samples included 30 executives of the schools, 170 teachers, and 5 experts. The instrument used is questionnaire. Statistics used in this study are frequency, percentage, mean, standard deviation and content analysis.

The study showed that mostly the schools, on operating conditions, had the internal quality assurance using standards of the Office of Basic Education Commission, totaling 15 standards and 65 indicators, and set some additional standards. On the problem, mostly they lacked of an operating budget, monitoring, evaluation and self-evaluation reports, as well as the unclear or incomplete annual report. On the requirement, mostly they needed a person who can guide knowledge about quality assurance or other knowledge which supports the update internal quality assurance continually. For the feedback, there should be a training on knowledge provided to personnel and they needed clearness of the original affiliation. The researcher, based on the study result, principles, theory of knowledge management and empowerment evaluation, as well as structure, approach, process of internal quality assurance in schools of the Office of Basic Education Commission, designed the internal quality assurance system based on knowledge management and empowerment evaluation for small school to be under The Office of Basic Education Commission. The structure consists of two parts: the main structure and supplementary structure. The main structure is the internal quality assurance in schools under standards of basic education. The supplementary structures are knowledge management and empowerment evaluation. By examination of the expert, it was found that the main structure is a process of operation of internal quality assurance in schools, and the supplementary structure is to handle knowledge management and empowerment evaluation according to the procedure, conforming to the main structure completely and smoothly. And the tactical operations are training, consulting and directing.

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Keywords: knowledge management, empowerment evaluation, internal quality assurance system in schools

Background and Importance of Problems

The main idea of educational quality assurance system is to promote educational quality improvement with quality control, provision of quality standard, school development to meet the academic standards and quality audit which will monitor and follow up performance, including assessment on quality of the school from supervising agency of each educational area. These are what the school has to carry out using the key principle of quality assurance in the school as follows: setting aim of the quality assurance in the school together, developing and improving quality to meet the educational standards, implementing to achieve the target, making the quality assurance become a part of management process and working of all staffs in the school and regarded as a duty of all staffs in the school. But at present, the small schools also face the major problem related to system development and implementation of internal quality assurance in the school such as understanding and cooperation of all concerning persons to develop on quality assurance system in the school-discrepancy of understanding and insufficient cooperation. It is not comprehensive widely and has not been promoted concretely, coordination of departments has not been linked enough, maintenance and expansion of the system of quality assurance in education is not efficient apparently. These make the students in small schools have poor quality compared with other large schools.

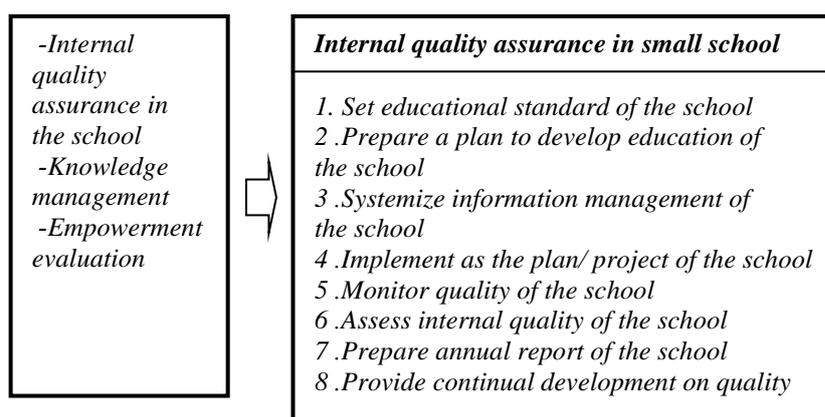
From <http://smallschool.obec.go.th/bestway/bestway00.php>. Retrieved on 20 July 2010.

School is the most important unit in education management. Since the schools are responsible for providing teaching and learning to the students, whereas the school administrators and teachers are responsible for implementation. How high the educational quality in schools is, it is up to the administrators and teachers as the key factors. In this regard, knowledge management is the concept prevalent in the field of education because Knowledge Management (KM) refers to the integration of knowledge into practice which is the knowledge occurs from learning, attitude in work, working experience and behavior of the individual.(Tacit Knowledge) In particular, learning management of the teachers needs the appropriate knowledge and process. And the empowerment evaluation is the evaluation concept presented by David Fetterman.1999 that the empowerment evaluation relies on principle of teamwork, assessment techniques, and findings from evaluation to encourage self-development and self-direction to be a process that allows groups of people to help themselves to have self-development using self-assessment and self-reflection. Groups of people involved in the work shall carry out from target setting, strategy setting and planning to implementation so that practitioners in the schools have responsibility on their job, activate working with power to decide, including linking attributes, attitude and ability of the individual to work as a team to be consistent with the environment, context and the problem of the school by empowering and giving opportunity to the individual to show potential to cause ongoing changes in the organization level (Scott; & Jaffe.1991): (Zimmerman; & Rappaort.1988).

In this matter, knowledge management is a concept used extensively in the education field since the Knowledge Management (KM) refers to integration of knowledge into practice. This is the knowledge resulting from learning, attitude in work, work experience and working behavior of the individual. In particular, the learning of the teachers

needs the right knowledge and process. Together with this, the empowerment evaluation is the evaluation idea presented by David Fetterman.1999, saying that the empowerment evaluation relies on the principle of teamwork, assessment techniques and findings of the evaluation to encourage self-development and self-direction as the process that allows groups of peoples to help themselves to develop themselves using the methods of self-assessment and self-reflection. The people involved in the work have to carry out since setting target, strategy and planning for implementation so that the practitioners in the schools have responsibility on work. There fore, developing internal quality assurance system using knowledge management and empowerment evaluation for small schools to be under The Office of Basic Education Commission will contribute to sustainable improvement and development, focusing on the involved peoples in the schools use the knowledge to improve the quality of education resulting from participation, having the empowerment evaluation, that is learning based on self-assessment and self-reflection so that they can decide or determine how to carry out by themselves. This will be an approach to develop the internal quality assurance system for the small schools.

From the concept of internal quality assurance, principles of knowledge management and empowerment evaluation in this study, the framework in this study is presented as follows:



Objectives of Research

1. To study the current conditions, problems, and needs for operation of internal quality assurance in the small schools under The Office of Basic Education Commission.
2. To develop internal quality assurance system based on knowledge management and empowerment evaluation in the small schools under The Office of Basic Education Commission.

Literature Review

System refers to a group of elements jointly performing duties both related to an independent from each other in order to achieve any of targets or objectives as expected or set.

System development refers to the development of internal quality assurance system for small schools by studying elements of the system as follows: input or problems of operation of system development, weaknesses found in each issue of the context and circumstance of each school. The processes to be used are knowledge management process and empowerment evaluation, then the system is analyzed, then designs the system or models the system to test using the system in the field, and finally evaluated the system.

Knowledge management refers to integration of knowledge into practice (Tacit Knowledge), which is the knowledge occurs from learning, attitude in work, work experience, and working behavior of individuals who perform the same or difference task. There is meeting or seminar to exchange knowledge each other. After integration, applying the knowledge to synthesize, analyze or re-systemize to create the new knowledge, accept advantages and problems of each other, collect data systematically to be accepted in the rules of the school that everyone accepts, and then publicize the knowledge to develop the knowledge or create benefit from the knowledge and bring to practice to get benefits for themselves and the school, as well as being a model for other agencies. This will be helpful for academic field and education field further.

Empowerment evaluation refers to evaluation that relies on the principle of teamwork among groups of people in the small school where all peoples have to empower themselves. It is the way to use the concept of evaluation, evaluation techniques, and the findings of assessment to activate causing self-development and self-direction, using both qualitative and quantitative methods. This is a procedure done to help groups of people to have self-help and self-improvement by means of self-assessment and self-reflection. People involved in the work include internal staffs that perform evaluation by themselves, have the idea of assessment focusing on continuous and sustainable development.

Internal quality assurance system in a small school refers to operation of the internal quality assurance system using the principle of knowledge management and empowerment evaluation, that is, to jointly set the qualitative targets of learners in the school by considering on performance of quality internal assessment in school according to standards and indicators of the Basic Education Commission to identify what the weaknesses or points to be improved in any standard or indicator are, then jointly set the vision (Knowledge Vision) and allow each staff in the school to think and discover knowledge on their own (tacit knowledge) and external knowledge (explicit knowledge) to jointly manage in order to fix and develop. During operation, there is also knowledge sharing to cause development. There is evaluation using empowerment evaluation to find out the best practice so that everyone in the school has resolution and they accepts such best practice and then keep it as the knowledge assets of the school further.

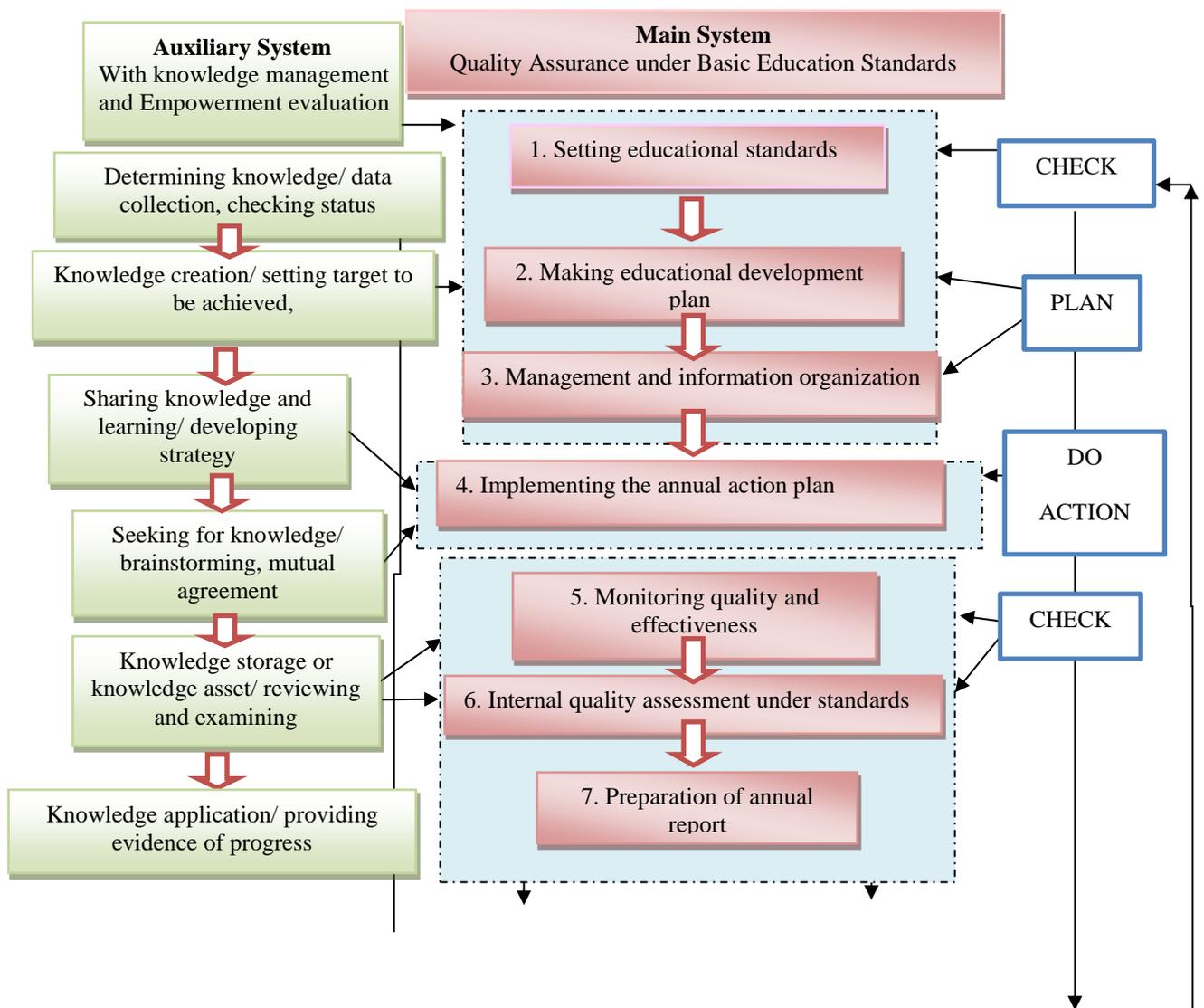
Quality assurance system in a small school refers to skill and process to develop internal quality assurance system in a small study effectively and efficiently by considering on quality meeting standard and indicators of the Office of Basic Education Commission and accepted by communities according to assessment standards of four areas: 1) usefulness 2) possibility 3) suitability and 4) accuracy.

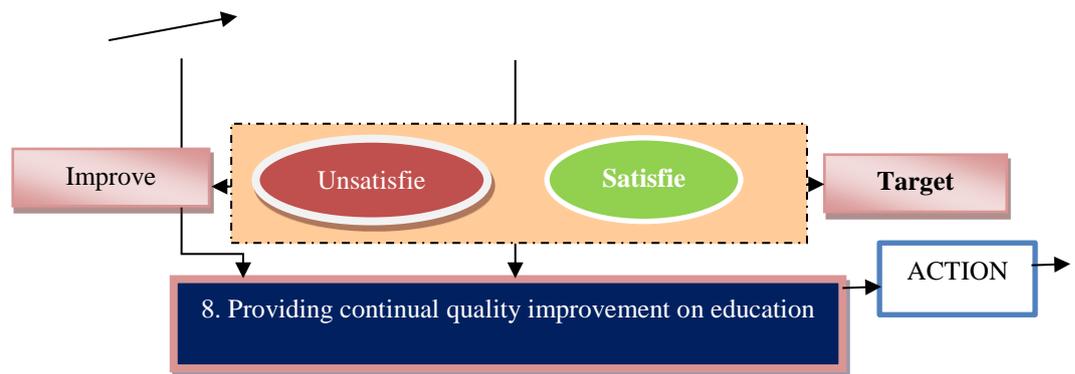
Research Methodology

In this research, the researchers conducted a study of samples from all regions of the country which include 30 school administrators, 170 teachers. Tool used for data collection is questionnaire which the researcher coordinated assistance from the Primary Educational

Service Area Office selected as a sample. Data collected was analyzed as follows: The quantitative data was analyzed by determining frequency, percentage, mean, standard deviation. The qualitative data were analyzed by content analysis and conclusions. In the study, the researchers studied principle, concept, theory of knowledge management and empowerment evaluation, including studying of structures, approach, and processes of the internal quality assurance in schools of the Office of Basic Education Commission, synthesized to make a database for drafting the system of internal quality assurance in schools using knowledge and empowerment evaluation for small schools under The Office of Basic Education Commission, that is to prepare a manual of the internal quality assurance system using knowledge and empowerment evaluation for small schools under The Office of Basic Education Commission, and held a meeting to explain the relevant parties, including the directors of the schools, all teachers, and the internal quality assurance committee within the school in the following issues: 1) target of internal quality assurance 2) approach to implement 3) implementation period 4) determining coordinators and duties 5) explain the manual for implementation of the internal quality assurance as well as applying a pre-test on knowledge and understanding on internal quality assurance in schools to collect data from the samples before implementing the system.

Internal Quality Assurance System based on Knowledge Management and Empowerment Evaluation for Small Schools under the Office of Basic Education Commission





Summary of internal quality assurance system in small schools based on knowledge management and empowerment evaluation under The Office of Basic Education Commission

1. In setting standards, used the knowledge management and empowerment evaluation, that is, determining knowledge or data collection, checking status, where the executives or teachers and all involved persons must participate in analysis of standards and indicators as required by The Office of Basic Education Commission, and consider additionally other than standards and indicators required by The Office of Basic Education Commission on the standards or indicators that are considered as the ones reflecting identity, and evaluate or monitor to find which standard or indicator is the strength or weakness of the school and then announce as a target value for each standard and indicator in order to establish a four-year development plan and the annual action plan on the issues to be corrected in each year.

2. In making educational development plan, used the knowledge management and empowerment evaluation, that is, knowledge creation or setting target to be achieved, which is the stage that everyone has to be aware and try to solve the problem by analyzing in stage 1, using concepts from self-development and self-evaluation, principle of reflecting the assessment result of the group (group dynamic), and find the tacit knowledge to see who has have knowledge in order to correct the weaknesses of the analysis. Or upon considering that they do not have the tacit knowledge and/or seek for explicit knowledge, the technology may be used from acquiring knowledge from experts, folk wisdom, and colleagues, and then set objectives in preparation of the plan, development project, and manage budget or resource, jointly define roles clearly, which everyone must accept each other on ability.

3. In management and information organization and implementing the annual action plan, used the knowledge management and assessment power, that is, sharing knowledge and learning or developing strategy, seeking for knowledge from brainstorming and, mutual agreement. These are the stage of organizing information and implementing as planned, requiring the responsible persons to participate in activities to create knowledge, share knowledge, academic conference, and brainstorming. These aims are to empower the responsible people to have self-development, stakeholders to have self-determination independently, and focusing on participation, where the responsible persons jointly control for the balance, bringing about learning of the schools. This is regarded that the self-assessment is a development process, not assessment for reporting, regarded that the assessment is a work and duty of everyone in order to develop strategies to achieve the goal.

4. In monitoring quality and internal quality assessment under standards, used the knowledge management and empowerment evaluation, that is, knowledge storage (knowledge asset) or reviewing and examining, which are the process to monitor both inside and outside the schools educational institutions, where everyone hold the meeting to share their knowledge periodically on any plan or project as careful consideration and consensual agreement of the meeting that there are reviewing and monitoring on effectiveness and appropriateness. This can be regarded as the best practice and knowledge storage, which may be made as a portfolio to publicize in website as the process of providing evidence of progress. In this stage, the participants in the project should prepare to show evidence of progress in relation to the goals of the project. External assessor has a role as a consultant rather than a role to evaluate performance as data storing, analyzing and giving feedback to support decision of the project participant, but recommend storing the knowledge as knowledge asset of the school further.

5. In the preparation of the annual report and providing continual quality improvement on education, used the knowledge management and empowerment evaluation, that is, knowledge application/ providing evidence of progress, which all schools had to prepare an annual report on internal quality evaluation of the schools by considering selecting the evaluation result to be kept as the knowledge asset, applied and released in form of exhibitions, conference presentation, including publishing in journals websites, etc.

Procedure

1. Prepare a manual of internal quality assurance system based on knowledge management and empowerment evaluation for small schools under The Office of Basic Education Commission.

2. Hold a meeting to explain concerning persons including school director, all teachers and internal quality assurance committees of school according to the following topics: 1) target of the internal quality assurance 2) way to implement 3) implementation period 4) designation of coordinator and function 5) the manual of the internal quality assurance

3. Apply the test of knowledge and understanding on internal quality assurance in the school to collect data to all samples as the pretest of system implementation

4. Implement development activities of internal quality assurance system.

5. Collect data using the test of knowledge and understanding on the internal quality assurance in the school and questionnaire about satisfaction towards development of the system.

6. Analyze data

7. Assess quality of the system from system users including school director, all teachers or staffs and internal quality assurance committees of school.

The results are summarized below

1. On operating conditions, there was implementation of the internal quality assurance system in education by trying to make understanding correspondingly in the standards and using the standards of the Office of Basic Education Commission, totaling 15 standards and 65 indicators. There were monitoring, evaluation, report writing, self-evaluation, as well as improving the quality of education continually, even it was not yet clear and complete but they prepared a report annually. **For the problem**, they needed a

person who can guide knowledge about quality assurance or other knowledge which supports the update internal quality assurance continually. **For the requirement**, they needed a budget in training knowledge for personnel and the clearness of the original affiliation from the Office of Basic Education Commission. The standardized pattern can develop the internal quality assurance system, which has continuity and facilitates the internal quality assurance of small schools in particular. 2. The researcher designed the internal quality assurance systems using knowledge management and empowerment evaluation for small school to be under The Office of Basic Education Commission, consisting of the main structure : internal quality assurance in schools of the basic education, including setting educational standards, making educational development plan, management and information organization, implementing the plan, monitoring quality, internal quality assessment, preparation of the annual report and providing continual quality improvement on education. The supplementary structure is knowledge management and empowerment evaluation, consisting of determining knowledge or data collection, checking status, knowledge creation or setting target to be achieved, sharing knowledge and learning, developing strategy, seeking for knowledge or brainstorming, mutual agreement, knowledge storage or knowledge asset, reviewing or examining and knowledge application providing evidence of progress. By examining of the expert on the system, it showed that the main structure is a process of implementing the internal quality assurance in schools correctly and the supplementary structure is a part helping implementation of internal quality assurance in schools conform to the main structure smoothly and possible to be successful. Both parts of the structure are fit and related to each other by the tactical operation, i.e. training, consulting and directing.

Benefits from a Research

1. Small school in the basic education level and related personnel or entities got the way to develop and improve implementation of internal quality assurance systems in school based on knowledge management and empowerment evaluation.
2. Learners in the small schools were developed with full potential
3. Personnel and community of the small schools have understanding and gave cooperation for development on the internal quality assurance system of the school.
4. Small schools could develop themselves to meet standards and indicators of the Office of Basic Education Commission and be accepted by the community.

Recommendation

1. Recommendations for applying the research results

1.1 Applying the model for development on internal quality assurance system for small school;

- 1) provide training for school administrators and teachers who arrange learning to understand the internal quality assurance system for a small school.
- 2) provide training for the internal quality auditors for internal quality assurance in small schools.
- 3) committees or agency in 1) appoint the audit sub-committee and evaluate the quality of education (at least 4 people per school) to assess the internal quality of the small schools.

2. Recommendation for further research

For further studies, there should be the research to develop the internal quality assurance system of schools of all sizes or types so that operation of educational quality assurance of schools to be under the Office of Basic Education have pattern of operation systematically conforming to operation of national educational quality assurance operated by Office for National Education Standards and Quality Assessment (ONESQA) with common standard and indicators which are identity of education in the level of basic education obviously in order to make transparency of arrangement of education of teachers to public to make the society to believe that the schools under The Office of Basic Education Commission spend money from tax of people efficiently and effectively.

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PISA and TALIS Results: Contributions to School Improvement



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Abstract

This paper presents an analysis of the findings on PISA (Program for International Student Assessment) and TALIS (Teaching and Learning International Survey) for the improvement of school quality performance, astray due to the advancement of information technology and communication. The criterion applied was based on the configuration of the schools that performed well in PISA 2009, in São Paulo, according to the TALIS/PISA and the figuring out the practices developed in those schools. A quantitative-qualitative methodological research approach focused on data consisted on the analysis of interviews with the general coordinator of PISA 2009 in Brazil and with directors, coordinators of the selected schools; visits to those schools; collection of questions from PISA answered by students and directors and TALIS questionnaires answered by the director and teacher participants. Supported by the verification of the convergence of the management of the schools it was possible to deepen the reflection on their acknowledged curriculum, instruction, proficiency of their staff, practices to develop reading habits and involvement of students in the learning process so as to devise procedures to maximize their educational objective evolution, adding to their in-service formation process to meet the needs of the groups. It was concluded that those contributions assist in the formulation of public policy and education management and in the improvement of the educational system and schools in Brazil and raise important issues on insufficient and below expectation performance of institutions and invites for reflection on the practices adopted by those schools.

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Keywords: TALIS, PISA, school quality improvement, information technology and communication

Introduction

An educational system committed to teaching and learning for individuals is based on the idea that “The key to a strong knowledge economy is not only whether people can access information. It is also how well they can process information.” (HARGREAVES, 2004, p. 34). In this context, the success of individuals depends on their ability to learn and continue learning to link information and knowledge. Understanding this process requires an assessment of the educational system and studies based on quality indicators in Education.

Among the most important assessment procedures applied are the PISA (Program for International Student Assessment) and TALIS (Teaching and Learning International Survey), two distinct international assessment and study tools, respectively, developed by the Organization for Economic Co-operation and Development (OECD) to provide a better understanding of the teaching and learning process. Brazil has taken part in the PISA as an invited country since 2000 under the coordination of the Brazilian Institute for Research and Studies in Education (*Instituto Nacional de Estudos e Pesquisa Educacionais – INEP*).

The objective of this article is to offer an analysis of the outcomes of the PISA and TALIS assessments, comparing the related results with the performance of three Brazilian schools in the city of São Paulo, a public institution (EEJD) and two private establishments (EPSA and EPCS), chosen on the basis of the high scores attained on the 2009 PISA. The results of the reading test, a central aspect of the 2009 PISA, were selected as the focus of this analysis.

The analysis is based on the concept of quality education and school system effectiveness, as per the work of Sacristán (2001), Hargreaves (2004), Oliveira and Araújo (2005), Reynolds and Teddlie (2008), Sammons (2008), and Méndez (2011). From the work of various experts, the concept of wide-scale assessments is examined through the ideas of Hoffman (2000) and Gomes (2005). The literacy concepts of SOARES (2003) and Bonamino (2002) are employed, given their pertinence to the focus on reading.

The methodological organization of the study takes into account the nature of the educational process, reaching beyond simple analyses of the statistical data, which are insufficient for a proper understanding of the process, to include the development of proposals to enhance the learning and teaching experience. In this light, qualitative and quantitative models were used to process and analyze the data, as the application of a diversity of data can contribute toward enhancing our understanding of the reality under study. The data collection procedures applied included an interview with the general coordinator of the 2009 PISA in Brazil; interviews with principals/coordinators, visits to the target schools, analysis of selected questions on the PISA questionnaires completed by the students and principals of the target schools; analysis of the TALIS questionnaires completed by participating principals and teachers.

This article offers a comparison between the average obtained on the PISA and TALIS in the OECD countries and Brazil and a comparison of the reading proficiency results obtained by the target schools, taking into account the official PISA records and questionnaire on reading and study habits.

In this context, the assessment serves as an analytical reference instrument to review the investments required for the fulfillment of goals and the enhancement of practices. The assessment seeks to draw interpretations that do not address the educational experience as a static exercise but as the observation phase in a dynamic non-linear process of knowledge-building and goal attainment. In this light, the assessment can be applied to systems in the form of quality indicators or to students and teachers as evaluations of results and practices.

Improving the quality of teaching is a complex process that requires well-defined, continuous, and closely monitored policies, involving the participation of government and society alike. According to UNESCO (2004, p. 5):

[...] the concern with quality arises from the assumption that a quality education contributes to boost individual incomes throughout life; provides for more vigorous economic development in countries; and enables people to make more informed choices on questions of importance to their well-being [...] All of the benefits of education are closely linked to the level of schooling attained by students.

Current challenges require that a full understanding of global changes and emerging economic frameworks is required, in addition to information on the results of the work of educational institutions, insofar as educational systems are recognized to be a decisive factor in the global development process. A number of studies on the inherent difficulties of educational practices have demonstrated that the results attained to date fall short of the intended goals. According to the Education for All Monitoring Report (UNESCO, 2010), an annual study by UNESCO – United Nations Educational, Scientific, and Cultural Organization, repetition and dropout rates in Brazil are among the highest in Latin America. The report found that nearly five hundred thousand children across the country are out of school.

OECD: the assessments in context

The educational project of the OECD – Organization for Economic Co-operation and Development is founded on a working research methodology of the member country governments centered on an external assessment of the respective school systems. The primary objective is to generate basic statistics on funding, access, progress, and completion of studies, as well as learning environments and performance results in connection with core academic subjects. The results are obtained by applying standardized tests and studies that enable comparisons between participating countries and the determination of quality indicators in education.

The TALIS – Teaching and Learning International Survey – consists of questionnaires applied to principals and teachers, with a view to producing data on teaching environments and working conditions for middle school teachers (5th-8th grades or 6th-9th grades). The TALIS captures the specific characteristics of the teaching environments and working conditions of middle school teachers.

One of the leading currently tools used to assess academic performance worldwide is the PISA – Program for International Student Assessment. Produced every three years and applied to students between the ages of 15 years and 3 months and 16 years and 2 months at the time of the respective tests, the assessment is developed and coordinated internationally

by the member countries of the OECD with the participation of invited countries. The program is designed to measure global academic performance, with a view to establishing credibility parameters on the quality of teaching. Its principal purpose is the production of effective indicators on educational systems through implementation of public international measures in the educational field. In this context, the assessment plays a significant role in the establishment of quality indicators for basic Brazilian education through a comparison of the country's results with those of other countries. The participation of Brazilian students allows for examination of the factors contributing to the development of skills, in addition to cross matching of these factors aspects with the results obtained by other countries – similarities and differences alike (Indicadores de Qualidade na Educação – INEP, 2007). This spurs teachers to reflect on the performance of students in the classroom and in school, in addition to incentivizing investments in academic environments and fostering relationships with peers, parents, and students.

The objective of the PISA is to assess the educational system in participating countries in the fields of Reading, Math, and Science. The results enable comparisons between the educational characteristics of the countries that submit themselves to the assessment. The comparisons require extreme care, given the underlying differences between countries by virtue of the distinct socio-cultural features of their educational systems.

The 2009 PISA was the fourth edition of the Program since 2000 and included the participation of 65 countries, 34 of them members of the OECD. A total of 4,500 to 10,000 students from each country regularly participate in the study. *“Brazil is the only South American Country that has participated in the PISA since its first edition in 2000,”* says the national PISA coordinator, Sheyla Lira. The 2009 PISA included the participation of more than 20,000 Brazilian students born in 2009, against with 4,893 in 2000 and 20,127 in 2009, representing a 311% increase, a substantial rise in the number of participating students.

Based on the results presented by the OECD (2010b, p. 6), the lowest performance level obtained by a member country of the OECD was Mexico, which scored 425 on the reading assessment (level 2). In terms of performance, the difference between the highest (Shanghai-China – 556) and the lowest (Mexico – 425) performing participants in the OECD was 114 points – corresponding to more than two years of schooling. The difference between the highest and lowest performance levels among invited countries was 242 points – representing more than six years of formal schooling – discounting for the average performance of Shanghai-China and Kyrgyzstan (314).

On the reading assessment test, 17.7% of the students in OECD countries fell below level 2, a total which did not include those individuals not enrolled in school or individuals behind in their studies due to poor academic performance, according to OECD criteria, or 15-year-old students who had not completed 7th grade. In Brazil, students deemed behind in their studies account for 19.4% of the population segment – a significant percentage when compared to the highest ranked countries. Almost half of all Brazilian students (44.6%) scored below level 2. Level 2 refers to a proficiency level at which students begin to demonstrate reading skills that provide them with the ability to participate in life in an effective and productive manner. Students unable to attain this level have difficulty locating basic information, comparing or contrasting basic figures, recognizing the meaning of a passage from a text with information which is not explicitly provided, or establishing a connection between the text and the knowledge derived from personal experience.

Brazil ranked 53rd among all countries participating in the PISA, and 4th in Latin America, ahead of Argentina and Colombia. Brazil scored 19 points behind Mexico (49th place), 26 points behind Uruguay (47th), and 38 points behind Chile (45th).

According to the OECD (2011a), Brazil ranked among the 13 lowest performing countries in reading performance, when compared against the average performance of the member countries. The OECD report (2011a) documents the relationship between the pleasure derived from reading and strong results in the participating countries and economies of the 2009 PISA. Students who read for pleasure tend to be more proficient readers than those who do not read for pleasure. As such, the time spent reading for pleasure is closely related to performance. Better readers tend to read more because they are more motivated by the activity, resulting in a larger vocabulary and better reading comprehension skills.

Analysis of the target schools

The most important responsibility of educational systems is to fulfill the curricular program established through official parameters. The outcomes of the PISA and TALIS gauge and can ensure the value of the learning content offered.

The educational proposal should awaken the curiosity of students and spur them to research and to action – from assigned activities to the selection of texts. Reading skills should be stimulated through questions that help develop the imagination and critical thinking. To be sure, the development of these abilities constitutes the core of this research effort, insofar as the objective was to understand if this premise serves as a guiding basis of the procedures adopted by schools scoring high on the PISA assessment.

Clearly, an assessment cannot measure all of the knowledge acquired and assimilated, mainly because not all acquired knowledge is subject to assessment. In this light, the survey sought to identify the specific actions capable of producing strong results. With a view to ensuring confidentiality, the target schools were identified by code: EEJD (public/state), EPCS (private), and EPSA (private).

Table 1 provides a comparison between the results of the member countries of the OECD, Brazil, and the three schools analyzed for this study.

	Reading proficiency levels – 2009 PISA				
	OECD	Brazil	EEJD	EPCS	EPSA
Below level 2	17.7%	44.6%	-----	-----	-----
Level 2	24%	27.1%	-----	22%	6.3%
Level 3	28.9%	15.9%	100%	78%	26.3%
Level 4	20.7%	6.1%	-----	-----	37.9%
Level 5	6.8%	1.2%	-----	-----	22.1%
Level 6	0.8%	0.1%	-----	-----	7.4%

TABLE 1: Reading proficiency levels – 2009 PISA
Source: OECD, 2010

The findings in Table 1 reveal the performance data in the Brazilian context, above all the private institutions (EPCS and EPSA).

Students with low performance levels are those scoring below level 2, based on the minimum acceptable Reading proficiency level. At level 2, students are asked to identify the main idea in a given text, understand the various relationships, or deduce the implicit meaning of non-explicit information. High performance students are those who attain a Reading proficiency level of 5 or higher. At level 5, students must have full and detailed understanding of textual content and formats previously unfamiliar to them. Low performing students are those with results below 90% of their peers. High performing students are those with results above 90% of their peers (OECD 2011b, p. 3).

When asked about factors that impact the quality of classes, students pointed to the lack of discipline and delays by teachers in initiating classes.

Table 2 offers a comparison in the Reading proficiency scores of the member countries of the OECD, Brazil, and the target schools.

Reading scores – 2009 PISA				
OECD	Brazil	EEJD	EPCS	EPSA
495	412	477	462.5	591

TABLE 2: Reading Scores – 2009 PISA
Source: 2009 PISA

The data in Table 2 reveal that the public institution EEJD scored higher than the private establishment EPCS, while EPSA scored the highest among the three survey schools. All of them exceeded the Brazilian average. For its part, EPSA surpassed the OECD average.

The 2009 PISA student questionnaire included participant profile indicators. With regard to the academic backgrounds of the 15-year-old students taking part in the assessment in Brazil, a full 73% attended Preschool, 17% repeated Primary Education (1st – 5th grades), 22% repeated Middle School (6th – 9th grades), and 4% repeated Secondary School.

In addition to assessing the scientific knowledge of students, the PISA included questionnaires for schools and students. The questionnaire applied to the school was made up of 27 questions encompassing the following categories: personal information, family organization, socio-cultural aspects, out of school reading activities, study time, study habits, Portuguese classes, school structure, and work performed by administrators.

The responses to the questionnaire contained contradictory information from the target schools. When asked how much time they devoted to reading for pleasure, 28% of students at EEJD, 33.3% at EPCS, and 10.5% stated that they never read for pleasure. However, 48% of students at EEJD, 22.2% at EPCS, and 36.8% at EPSA strongly disagreed when asked if they only read when required to do so. In regard to the frequency with which

students read fiction for pleasure, a full 32% of students at EEJD, 55.6% at EPCS, and 36.8% at EPSA responded that they read fiction a certain number of times each year, suggesting that reading on one's own does not necessarily correspond to reading for pleasure, but rather may indicate other needs, including required academic assignments. The study habits of Brazilian students revealed good reading procedures. A significant percentage of students made an effort to memorize as many details as possible: 28% at EEJD, 33.3% at EPCS, and 26.3% at EPSA. Many students strove to verify whether they understood what they had read: 36% at EEJD, 33.3% at EPCS, and 63.2% at EPSA. A large number of students sought to confirm if they were able to remember details of what they had read: 40% at EEJD, 44.4% of EPCS, and 47.4% at EPSA. With respect to the item **“When I study, I try to see how the information can be useful outside of school”**, the data revealed the difficulty students have in establishing a solid connection with other subjects or aspects of daily life. Only 11.1% of students at EPCS made an effort to link information between subjects, a result below that registered for the public school (24% at EEJD) and the other private institution (31.6% at EPSA). A total of 22.2% of students at EPCS made an effort to understand the utility of the information obtained outside of school. By contrast, 44% of students at EEJD and 52.5% of students at EPSA reported adopting this procedure frequently.

Based on these results, it is possible to reflect on what constitutes an effective school. Sammons (2008) notes that a number of factors can be identified from the wide-scale research studies applied in recent years. Specifically, key factors of school effectiveness can provide a better understanding of those aspects capable of contributing toward improvements in schools and educational systems, in addition to measuring the self-assessment and monitoring process of schools. On this front, the author lists *“eleven factors of effective schools”* (SAMMONS, 2008, p. 351): professional leadership, shared vision and goals, learning environment, concentration on teaching and learning, purposeful teaching, high expectations, positive reinforcement, monitoring progress, pupil rights and responsibilities, home-school partnership, and a learning organization.

According to Reynolds and Teddlie (2008), the characteristics of school effectiveness that underscore the adoption of good practices involve nine stages and their respective components.

The first corresponds to effective leadership, the components of which are: to be firm and have clear goals; to involve others in the process; to display pedagogical leadership; to frequently and personally monitor and select and replace staff.

The second stage is effective teaching, a feature closely tied to the third, which encompasses developing and maintaining an intense focus on learning. To this end, the following should be taken into account: maximizing class time; successful group formation and organization; presentation of best practices in teaching; and the adaptation of practices to the specificities of the classroom.

Creating a positive school culture, the fourth stage, focuses on the academic element and on maximizing learning time in school. The fifth stage is designed for the construction of high expectations in connection with a shared vision and the consolidation of an organized environment. In the sixth stage, emphasis is given to the rights and responsibilities of pupils, followed in the seventh by the monitoring of progress.

Finally, it is essential to train staff within the school establishment, the eighth stage, and to ensure the productive involvement of parents in the ninth stage.

Conclusions

This paper presents an analysis of the findings of the PISA (Program for International Student Assessment) and TALIS (Teaching and Learning International Survey) for the improvement of the quality of school performance, possible due to the advancement of the technology of information and communication.

The data presented in this article point to some important, albeit not decisive, factors for the attainment of good results, such as percentage of GDP devoted to education and socioeconomic barriers. While the investment rate in Canada (4.9) is less than Brazil (5.2), Canada registered one the highest results on the 2009 PISA – 547 points.

According to the OECD (2010b), family history has an impact on educational attainment, and family schooling levels often serve as a barometer of success. Although poor performance in school does not necessary stem from socioeconomic disadvantage, it has a powerful influence on academic productivity among students and schools.

Investments in Education are important, yet more important still are strategies to track and monitor results. It is essential that school systems commit themselves to the education of young people, challenging pupils to enable them to realize their potential fully. Schools with strong results implement high educational standards.

Of equal importance is to invest in fairness in the school system. All students have the right to a high standard of education, pursuant to the Universal Declaration of Human Rights, article XXVI, “*Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages.*”

In Brazil, sharp differences were registered between the schools surveyed: the federal public schools score 535 on average on the Reading assessment, while state public schools obtained 403 points and private schools, 516.

Based on the demands of the contemporary world, the schools deemed of highest quality are those which have effectively made the transition from teaching *what to know* to *how to know* (MÉNDEZ, 2011).

For the schools surveyed, the aspects cited by Reynolds and Teddlie (2008) appeared in many of the statements and responses provided by principals, coordinators, and teachers. However, the assessment of educational practices implemented by schools revealed a contrasting organizational reality. The reports of students clearly indicated that classes continue to be structured by teachers and that students are not allowed to exercise independence to any relevant degree, as a consequence of which reading classes, for example, were evaluated as not intellectually challenging or stimulating.

In this light, the objective of wide-scale assessments is to develop a diagnostic analysis of the Brazilian school system and of the factors capable of affecting student performance through indicators on the quality of educational offerings. The information is intended to foster the formulation, reformulation, and monitoring of education policies at the municipal, state, and federal levels, contributing to enhanced educational quality, equity, and effectiveness.

In a knowledge-based society, individuals must continuously update and strengthen their skills and qualifications and engage in as wide range of learning contexts as possible, which only a multi-faceted literacy education in different knowledge areas can offer.

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Improving Schooling through Curriculum Guidance Documents

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Abstract

A focused curriculum policy clarification has been carried out in South Africa since the ANC government came to power in 1994. The clarification based on providing specific details to the teachers aims to provide them with specific information of what they are expected to do in their classroom work in order to improve their lessons and, subsequently the quality of schooling that is offered in the country. The revised policy also spells out assessment standards. This paper examines aspects of the revisions in the English First Additional language (EFAL) policy curriculum in order to analyse the teacher development model that has influenced such revisions. It does so by first giving an account of teacher development models, looks critically at their underpinning concepts and principles of competence in teaching, and then uses this account as a lens to interpret the model that has influenced policy revision. We also look at the curricula many of the teachers were exposed to in their initial professional education and the implications thereof for subject expertise. The argument in the paper is that the revisions require particular subject expertise for policy requirements to make sense to the teachers and for them to be translated into lessons that would be enhancing the quality of schooling they offer. The discussion is drawn on to highlight the reasons for the challenges that are likely to continue in the schooling sector in South Africa.

Key Word: policy guidance

Introduction

Since 1994 South Africa has had four reviews of education policy: Curriculum 2005 (C 2005) in 1998; the Revised National Curriculum Statement (RNCS) in 2002; the National Curriculum Statement (NCS) in 2009 and the Curriculum and Assessment Policy Statement (CAPS) in 2011. CAPS consolidate the three policies preceding it (DoE, 2011). It was formulated in response to the challenges the teachers faced when having to implement the NCS and claims to provide detailed guidance for its (NCS) implementation (Catholic Institute of Education, 2010). It also specifies the knowledge, skills, values and subject content that have to be taught.

In particular, as regards teaching English First Additional Language (EFAL), proficiency is emphasised. EFAL is a second language for the majority of learners and is often chosen as a language of learning and teaching (LoLT). As one of the official languages it has a dominant social and economic status as well. Albeit, many teachers and learners face

challenges when using it for teaching and learning. Therefore, as a gateway subject, if poorly used, it severely limits academic success.

Teachers are assumed to be equipped with the necessary knowledge and skills to draw on multilingualism and ethnic diversity as resources for meaningful teaching. They are provided with specific details on the language levels and skills to be taught and the approaches, time allocation, learning support materials, activities and resources to be used. Below is an example of the detailed plan of suggested activities for teaching Listening and Speaking.

Table 3: Term One - Two week plan for Grade 7 Listening and Speaking

Weeks 1 – 2	<p>Introductions: self or others</p> <ul style="list-style-type: none"> • Teach features and conventions of introduction • Language use <p>Listen to a short story</p> <ul style="list-style-type: none"> • Identify main and supporting ideas from a short story • Take notes • Share ideas and experiences and show understanding of concepts <p>Retell a story</p> <ul style="list-style-type: none"> • Retell events in correct sequences • mention characters correctly • mention the timeline <p>Story telling</p> <ul style="list-style-type: none"> • Teach conventions of storytelling: speaking skills, tone, pronunciation, tempo, intonation, eye contact, posture, gesture • Tell story from own experience
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Informal and formal assessment is emphasised. Types of assessment, tasks to be done, and what to do is indicated. The table below indicates how such guidance is provided.

Table 4: Formal assessment tasks for Grade 7

Term One	Term Two	Term Three	Term Four
<p>Task 1: Oral Retell a story/discusses a poem/dialogue/group/panel discussion</p> <p>Task 2: Written Descriptive/narrative essay Informal letter/review/dialogue</p>	<p>Task 1: Oral Listening comprehension/debate/conversation/(un)prepared speech/group discussion on giving instructions</p> <p>Task 2: Test 2 Literature: Contextual questions</p>	<p>Task 1: Oral Role play - meeting procedures/(un) prepared reading/giving direction/forum/panel discussion</p> <p>Task 2: Writing Role play - meeting procedures/(un) prepared reading/giving direction/forum/panel discussion</p>	<p>Task 1: Oral Reading aloud/debate/group discussion/(un)prepared speech</p> <p>Task 2: End of year examination Paper 1: Oral Paper 2: Comprehension, Language and Literature (2 hr) Paper 3: Writing - 1 essay and 1</p>

Term One	Term Two	Term Three	Term Four
Task 3: Test 1 Comprehension and language use	Task 3:Mid-year examinations Paper 2: Comprehension, language use and literature Paper 3: Writing: 1 essay and 1 transactional text	Task 3:Test 3 Comprehension and Language use OR Literature	transactional text (1 hr)

It is in this sense that teaching EFAL at this level of schooling is primarily concerned with i) listening and speaking conventions in English and ii) the understanding of English as a language. As a policy tool (Schneider and Ingram, 1990), CAPS can thus be looked at as clarifying teacher competences that are required to teach such conventions and what is essential to understanding them.

Generally, five models of teacher development that describe the different teacher competences can be identified in the literature, namely, competence as: practical-craft (Kennedy, 1999; Harrison, Dymoke & Pell, 2006); technological (Volante & Earl, 2002; Zeichner, 1999); personal (Connelly & Clandinin, 1990); academic (Carter & Anders, 1996; Feiman-Nemser, 1990) and critical-social in nature (Kinchloe, 2004 Volante & Earl, 2002). The models explain the different aspects that are necessary for developing these competences. They are described briefly below.

Teacher development models

The Practical-Craft Model

In this model long-serving teachers' experiences are a crucial resource for improving competence. Demonstration lessons, exemplar models of teaching and apprenticeships with experienced teachers are the most appropriate resources for learning. The wisdom of the teaching practices in schools takes precedence. Teachers are to approximate such practices in their own classroom. Mentor-teachers and school-based teacher education are important for this model.

The Technological Model

The reflective practice approach that is emphasised in this model blends theoretical and practical knowledge. Classrooms are considered as sites for critical interactive teaching and learning and theorising the experience under the guidance of a mentor. It encourages partnerships among school teachers, student teachers and teacher-educators e.g. 'school-university partnership' model of teacher learning. Developing teacher competence needs a coherent, broad-based and rigorous curriculum that influences teachers to take into account variables in the schools and classrooms when teaching.

The Personal Orientation Model

The model considers the teacher as needing individualised guidance. Teaching is viewed as an isolated activity from the general personal development.

The Academic Model

The model emphasises that teachers, especially those for secondary school, should study more disciplinary courses in their teaching subjects.

The Critical / Social Orientation Model

The model emphasises the development of good citizenship. Teachers are viewed as serving two roles - educator and political activist to promote democratic values and practices that learners need to foster a critical outlook towards the world they live in and contribute to its well-being. It thus combines a progressive social vision with a radical critique of schooling to bring about social change and improvement.

Discussion: Assumptions about EFAL teachers' competence

The academic and progressive social vision in CAPS relates EFAL knowledge and skills with human capital development that promotes meaningful citizenship. EFAL teaching is viewed as having the potential to contribute to this development if teachers can teach the English knowledge and skills that learners need to be able to listen, speak and demonstrate understanding in different forms of conversations and writing. It promotes self-actualisation on the part of the learners (see Eisner and Vallance, 1974) realised through the competent use of the English language in real-life situations. CAPS for EFAL can thus be viewed as aimed at the development of meaningful citizenship achieved through social and economic prosperity for English second language children within South Africa. However, challenges created by Apartheid education are likely to affect adversely how, in particular, the majority of these children as EFAL learners are enabled or not to develop and enjoy such citizenship.

During Apartheid African and other indigenous communities were seen as inferior and their languages relegated to use by family, church and community (see Alexander, 2001). English and Afrikaans were perceived as languages that could provide a superior education and lead to economic empowerment and social upliftment (Walker, 2002); thus their imposition as languages of teaching and learning for these communities. After the 1976 resistance to the use Afrikaans, English became the preferred language for the majority in these communities. However, many still lack the necessary proficiency and fluency in this language due to the poor education they have had (see Cross *et al.*, 2002; Christie, 2006). Consequently, the curriculum skills of the teachers belonging to these communities cannot be assumed. Zimmerman, (2010) has argued that their teaching competences are limited and under-developed. Therefore, with their levels of competency (Von Gruenenwaldt, 1999) CAPS is likely to remain a vision.

Understanding how to teach what CAPS proposes cannot be realised if the citizenship ethic that is akin to the South African constitution is not clarified as *essentially* relational and achieved by being able to use EFAL for economic empowerment and social upliftment when listening, speaking and writing. A learner cannot be competent in isolation from these aspects

Schneider and Ingram (1990) argue that, "...policy almost always attempts to get people to do things that they might not otherwise do; or it enables people to do things that they might not have done otherwise" (1997:513). It serves as an instrument to get things done or achieve goals, and "by focusing on the behavioural dimensions of policy tools found within

policy designs, [we] may be able to advance knowledge about the conditions under which target populations will contribute to preferred policy outcomes” (Ibid.:527). They claim that policy can do this in different ways, for example functioning as an authority, incentive, capacity, symbolic and hortatory tool to influence change on people’s beliefs and values. It can also function as a learning tool. In each of these cases, assumptions are made about people’s ability to adopt practices relevant to the stipulations of policy. Viewed in this sense, CAPS can thus be seen as a tool to build the capacity of teachers. It makes reference to the required EFAL teachers’ pedagogical competence through the stipulated curriculum objectives. This being the case, in Schneider and Ingram’s view, it is assumed that when teachers know about these objectives they will be motivated to embrace practices that will make them realisable: “...the target groups will have sufficient incentive or motivation to participate in the activity, or change their behaviour, if they are properly informed and have the necessary resources” (Ibid. 519).

In the case of CAPS, the assumption implies that teachers were presumed to have the capacity and dispositions to make professional judgements and take decisions that would meet the objectives of EFAL. However, Nozick (1995) has argued that standards cannot be explicitly defined without philosophical elaboration. They are relative and draw their meaning from a context. Therefore, viewed in this sense, CAPS has to clarify the degree of subject expertise and critical disposition that would facilitate effective EFAL teaching. This is particularly important in a context wherein critical thinking was historically discouraged in schooling.

According to O’Neill (2008, p. 394) “...making the kinds of practical choices that arise for human beings, given the material circumstances of their existence” is an exercise that involves “rational deliberation leading up to and providing the reasoned grounds of acting” (Rescher, 1966, p. 121). In short, these are choices that are likely to require a consideration of the knowledge and skills taught by the *Apartheid* curricula many of the EFAL teachers were exposed to in their initial professional education. Therefore, it may be difficult for them to grasp on their own the objectives of CAPS whilst still relying mainly on the English language and professional knowledge and skills provided by this education

In a study conducted in the North West Province of South Africa between 2008 and 2010, it became clear that teachers drew mainly on the knowledge and skills they were previously taught and consequently struggled to fulfil the goals of the NCS (Modiba and Stewart 2013). They were, for example, unable to use students’ primary languages as suggested and supported in Snow (1987) and Cummins (2000) to promote the effective learning of EFAL. In particular, many teachers who were second language speakers needed the academic and critical disposition and skills to interpret what was essential to the competences they had to teach.

Curriculum guidance presented as a ‘rough and ready guide’ (Lum, 1999, p. 410) that ‘steers from a distance’ (Kikert, 1991) fails to provide adequate guidance that is likely to motivate teachers ‘to contribute’ and enhance EFAL competences that are needed for successful economic engagement and social upliftment that redress the Apartheid education inadequacies. For CAPS to make a difference to the practices of these teachers and facilitate what Smith (2010, p. 2) calls ‘the *good* of teaching’ it has to explain how the material circumstances in which EFAL is taught have to inform teaching practices that engage

meaningfully the multilingualism and ethnic diversity that is characteristic of South African classrooms.

Concluding Remarks

Even though in advanced and fairer societies CAPS would be unquestioned, within South Africa it has serious implications for an equitable provision of education. The lack of clarity in it compromises the vision of the country. As Metz (2009, p. 353) explains:

Specifically, African moral theory ...does not require state officials to award resources on an utterly impartial basis; on some occasions, they may favour victims of state injustice, even when it would cost the public. The first reason ...requires displaying gratitude, expressing remorse and trying to reconcile with those who have been wronged This is what we expected from CAPS and what Metz considers as ethical in African contexts wherein sections of the society had been wronged.

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Total Quality Management: Managing and Leading Quality Schools



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Abstract

Quality schools are the drivers of a country. It is almost axiomatic that the best schools could be found in the most developed societies. The state of its schools reflects the condition of a country. Educational institutions produce its knowledge capital and strengthen the moral backbone of its citizens. Schools are of key importance to the socio-economic development of a nation, and to the welfare, happiness, and quality of life of its citizens.

This paper will discuss the management of a school as both an art and a science. It will deal with the habits that need to be developed by Quality Schools. It will also discuss the economic implications of the cornerstones of Philippine educational policy as a case study. Finally, this study will identify the principles of Total Quality Management that can be used in managing and leading Quality Schools.

Keywords: Baldrige Award, ISO 9000, Six Sigma, Philippine Quality Awards

Introduction

Quality schools are the drivers of a country. It is almost axiomatic that the best schools could be found in the most developed societies. The state of its schools reflects the condition of a country. Educational institutions produce its knowledge capital and strengthen the moral backbone of its citizens. Schools are of key importance to the socio-economic development of a nation, and to the welfare, happiness, and quality of life of its citizens.

This paper will discuss the management of a school as both an art and a science. It will deal with the habits that need to be developed by Quality Schools. It will also discuss the economic implications of the cornerstones of Philippine educational policy as a case study. Finally, this study will identify the principles of Total Quality Management that can be used in managing and leading Quality Schools.

Five Habits Of Quality Schools

Following the template used by Stephen Covey, the habits of Quality Schools can be presented as follows:

First, the Quality School must clarify and fine-tune its **vision** of what it wants to be and where it wants to go. Does it intend to be preeminent in the field of the arts, or in the realm of the sciences? Where does it intend to specialize?

Second, pinpoint the Quality School's **competitive edge**. Its comparative advantage can be the result of geographic location. For example, those situated near the sea have a natural advantage in the maritime and marine courses. A school can also draw tremendous advantage from the favourable confluence of extremely talented faculty, or a generous endowment that can fund cutting edge research.

Third, a Quality School always thinks “**win-win**” in relation to its various constituencies, which include the students, teaching and non-teaching staff, academic authorities, government regulators, other schools, and the public at large. It must develop the unique talent of balancing the time, attention, and resources to be channelled toward seemingly competing demands, as well as the ability to harmonize those demands. (Stephen Covey, 1990)

Fourth, a Quality School must be able to **dialogue** with, and engage the different players in its “sphere of influence.”

Fifth, and certainly not the least, are **the three I's**: Improve, Improve, and (further) Improve.

PHILIPPINE EDUCATIONAL POLICY CORNERSTONES

The following are said to be the cornerstones of Philippine education. Education for all: free public elementary and high school education, as provided in the Philippine Constitution. Education for livelihood: to prepare the students for a career, trade, or business. And education for global preparedness: to prepare the students not only for local employment but also for working abroad.

The economic implications of **education for all** are as follows:

Government is mandated under the Constitution to provide free public education in the elementary and high school levels. This mandate grows with an increasing population. As population grows, the public educational system must be able to accommodate more students who enrol every year. This will require bigger budgetary allocations to finance new school houses, classrooms and facilities, and hire new teachers.

Similarly, these are the economic implications of **education for livelihood**:

There is a market-driven demand for certain courses in the Philippines, such as hotel and restaurant management and information technology, some stronger than others. However, said demand is also sensitive to changing local and global economic conditions. The changing demand for courses makes it difficult for academic administrators to plan which courses to offer in the future; and how much to allocate for expansion in terms of buildings, classrooms, and facilities. The economic crisis has increased the demand for short term courses whose graduates can work right away.

The economic implications of **education for global preparedness** are as follows:

Graduates of Philippine schools compete not only in the domestic but also in the global work places. The global market, which broadens the employment opportunities for Filipinos, also creates pressure on Philippine schools to operate according to international standards. ISO registration of a school contributes to the acceptability of its graduates abroad. It standardizes the different academic processes – instruction, extension, research, etc. The theory is that since ISO registered schools meet the same international standards, they produce graduates of more or less the same quality. However, ISO registration is a major cost for a school. (Victor Arguelles, 2011)

APPROACHES IN TQM

The key principles of Total Quality Management approaches, such as ISO, Baldrige and Six Sigma, may be briefly presented and compared as follows:

ISO 9000

Key principles:

Customer focus – Organization must understand current and future customer needs, and strive to exceed customer expectations. (Since students are a school’s major clientele, “students” may be substituted to the word “customers”.)

Leadership - Leaders must create and maintain an internal environment which fully involves their people in achieving the organization’s objectives.

Involvement of the people - People’s total involvement enables them to fully utilize their abilities for the organization.

Process approach – A desired approach is achieved more efficiently when activities are managed as a process.

Systems approach to management – Managing interrelated processes as a system contributes to an organization’s effectiveness and efficiency.

Continuing improvement of overall performance – Should be a permanent objective of the organization.

Factual approach to decision-making – Effective decisions are based on analysis of data and information.

Mutually beneficial relations between organization and its suppliers enhance the ability of both to create value. (Evans and Lindsay, 2010)

BALDRIDGE

Key principles:

Leadership – How the organization’s senior leaders address values, directions, and performance expectations of customers and other community stakeholders.

Strategic Planning – How the organization develops strategic objectives and action plans.

Customer and market focus – How the organization determines requirements, expectations, and preferences of customers and markets.

Measurement, analysis, and knowledge management – How the organization selects, gathers, analyses, manages, and improves its data.

Human resource focus – How the organization motivates employees to develop and utilize their full potential to support organizational objectives.

Process management – How to examine key aspects of the organization’s processes for creating customer and organizational value.

Business results – How to examine the organization’s performance and improvement in key business areas, e.g. customer satisfaction, financial and market performance. (Evans and Lindsay, 2010)

SIX SIGMA

Key principles:

Think in terms of key business processes and customer requirements with clear focus on overall strategic objectives.

Focus on corporate sponsors/champions, support team activities, overcome resistance to change, obtain resources.

Emphasize quantifiable measures that can be applied on all parts of the organization.

Ensure appropriate metrics identified early in the process.

Provide extensive training followed by project team deployment to improve profitability, reduce non-value added activities, and achieve cycle time reduction.

Create highly qualified process improvement experts who can apply improvement tools and lead teams. (Evans and Lindsay, 2010)

The above Five Habits of Quality Schools can internally prepare the organization for Total Quality Management. A review of the TQM principles will show that these can be applied in the operation of Quality Schools. (Please see Annex.)

It is significant to note that Writers on TQM have observed commonalities in the three approaches, e.g. process-focused, data-based and management-led. At the same time, each one has a different “flavour” or emphasis.

According to James Evans and William Lindsay, “Baldrige focuses on performance excellence for the whole organization in an overall management framework, identifying and tracking important organizational results.”

In contrast, they say that “ISO focuses on product and service conformity for guaranteeing equity in the marketplace and concentrates on fixing quality system problems and product and service nonconformities.”

However, “Six Sigma concentrates on measuring product quality and driving process improvement and cost savings throughout the organization,” the same authors observe. (Evans and Lindsay, 2010)

THE PHILIPPINE QUALITY AWARDS

To give its brief historical background, the **Philippine Quality Awards** was created through Executive Order 448 in October 1997, and was institutionalized by Republic Act 9013, also known as the Philippine Quality Awards Act, in February 2001. The PQA sets a standard of excellence for Filipino organizations to achieve world class performance. The national quality award is often compared with the Malcolm Baldrige National Quality Award of the U.S. We will observe later on that it is based on the same TQM principles of Baldrige.

In a nutshell, the objectives of Philippine Quality Awards are as follows: (a) to promote standards in organizational performance comparable to those of leading businesses abroad; (b) to establish a national system for assessing quality and productivity performance in both private and public organizations; and (c) to recognize organizations which have achieved the highest levels of quality and business excellence, thus providing benchmarks which could be emulated.

Awards and recognition are given on four levels: one, the recognition for **commitment** in quality management; two, the recognition for **proficiency** in quality management; three, the recognition for **mastery** in quality management. The fourth and highest award is the Philippine Quality Award for Performance Excellence.

The key players in the Philippine Quality Awards are the following: The Patron, who is none other than the President of the Republic of the Philippines. The Chair of the PQA Committee is the Secretary of the Department of Trade and Industry. The Vice Chair is the President of the Development Academy of the Philippines, representing the public sector. And the other Vice Chair is the Head of the Philippine Quality and Productivity Movement, representing the private sector.

The Members of the PQA Committee are the highest ranking officers of the following institutions: the Philippine Society for Quality (PSQ), the International Data Corporation (IDC) the National Wages and Productivity Council (NWPC), the Philippine Association for Technical Education (PATE), the Department of Budget and Management (DBM), the Management Association of the Philippines (MAP), and the Civil Service Commission (CSC).

The strengths of Philippine Quality Awards consist in the following:

1. It establishes a direct correlation between PQA scores and organizational performance. PQA assessment criteria include the following: strategic planning, leadership, customer focus, workforce focus, operations focus, results, and management and knowledge analysis. These are basically the same criteria in Baldrige.
2. It espouses core values and concepts which are important to the organization, as follows: visionary leadership, customer-driven excellence, organizational and personal learning, valuing employees and partners, focus on the future, managing for innovation, focus on results and creating value, and social responsibility.
3. It integrates and synchronizes organization-wide improvements.

4. Last but not least, it involves the senior leadership in the organization.

Since 1998 to the present, numerous organizations from various sectors – business, not for profit, non-government organizations, and local government units - have received the Philippine Quality Awards in the different level categories: in recognition of their commitment, proficiency, and mastery in Quality Management. However, the point of interest in this presentation is that the Philippine Quality Award, level 2, has been presented to the country's oldest university - the University of Sto. Tomas, and several other schools in the Philippines, in various level categories. Centro Escolar University (also level 2), John B. Lacson Colleges, Don Bosco Technical College, and the Lyceum of the Philippines University Batangas are all recipients of the Philippine Quality Awards. (www.pqa.org.ph)

Conclusion

The successful application of TQM in an academic setting tends to prove the versatility of this technology, which has an impressive track record in the world of industry. An aphorism describes the relationship between industry and the academe – the university is said to be the “library” or knowledge keeper of industry; while industry is the “laboratory” of the academe, where new knowledge is continuously being tested, applied, and improved.

This presentation is not meant to give the last word in Total Quality Management. As an indicator, it simply points out an idea for consideration: that academe has the option to use the tools which have performed well for industry, such as TQM. In speaking the same language of Quality, the links between academe and industry are further strengthened, and the ultimate beneficiaries are the students. Total Quality Management can be an educational innovation in managing and leading Quality Schools.

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Annex

APPLICATION OF PRINCIPLES OF TOTAL QUALITY MANAGEMENT

BALDRIDGE

1. *Leadership* – Senior management should communicate the school’s vision, values and directions to everyone. This coincides with the first habit of Quality Schools.
2. *Strategic Planning* – The school’s strategic objectives will be defined by its vision and competitive edge established through a SWOT analysis. This coincides with the second habit of Quality Schools.
3. *Customer and market focus* – The students deserve an education characterized by academic excellence and industrial or work relevance. Industries must be part of a school’s “value chain”, to be involved in the preparation and teaching of curricula. (Jeanne Meister, 1998)
4. *Measurement, analysis, and knowledge management* – The quality of decision making in a school is determined by the quality of information at its disposal.
5. *Human resource focus* – A motivated and trained school work force is an effective and efficient work force. Instill a corporate citizenship in the human resource by sharing with them the school’s vision and identity.
6. *Process management* – While the deans and the faculty are front people who have direct contact with students, everyone in the organization, e.g. registrar’s office, accounting, security and maintenance, school canteen, impacts the quality of education.
7. *Business results* – Schools are generally more concerned with academic excellence than bottom line performance. And yet there is also the “economics of education.” The reputation of academic excellence will attract students to a particular school. While a poor bottom line will affect a school’s ability to deliver quality education.

B. ISO 9000

1. *Customer focus* – Offering courses with industrial or work relevance is part of the service Quality Schools offer to their students.
2. *Leadership* – The school’s senior management should transform their people into staff characterized by three C’s: committed, cooperative, and conscious of what their organization is all about. (Meister, 1998)
3. *Involvement of people* – The application of their intellect, energy, time and attention will be directly proportional to the staff’s involvement in the school.
4. *Process approach* - There is hardly any stand-alone activity in school. From the registrar in charge of enrolment, to the faculty which teaches the students, to the dean with an overall supervision of academic activities, to the caterer, the security and maintenance units, the school clinic, everyone’s role is interlinked with the others.

5. *Systems approach to management* – Any weakness or failure in one activity will have an adverse impact on total work quality. But teamwork and synergy among the various units will produce a “whole greater than the sum of its parts.”
6. *Continuing improvement of overall performance* – This coincides with fifth habit of Quality Schools.
7. *Factual approach to decision - making* – Effective decisions are seldom the result of guess work or gut feel. Quality decisions result from quality information.
8. *Mutually beneficial supplier relationships* - This coincides with the third habit of Quality Schools. A “**win – win**” approach to suppliers places them in the organization’s value chain. (Stephen Covey, 1990)

SIX SIGMA

1. *Think in terms of key business processes* - Identify those processes, requirements and activities in school with maximum impact on the achievement of overall strategic objectives, and channel more resources to them. By analogy, Pareto’s Law focuses on the critical 20% which produces the 80% result.
2. *Focus on corporate sponsors/champions* - Quality Schools should develop alliances to achieve their strategic objectives. This coincides with the fourth habit which is to dialogue with different players in their sphere of influence. (Tom Peters, 1992)
3. *Emphasize quantifiable measures that can be applied on all parts of the organization* - It is important that same standards be applied on all parts of the organization. To use an extreme example, TQM can’t use Baldrige for one part of the organization, say academics, and ISO or Six Sigma for the other parts.
4. *Reduce non-value added activities, achieve cycle time reduction.* This will automatically result in savings and value creation in the organization.

Create highly qualified process improvement experts - The quest for quality needs champions who are well trained and fully committed to the vision and objectives of Quality Schools.

Educational Success of Private Schools from the Principals' Perspectives



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Abstract

Principals are the main administrators of the schools. The leadership quality that they provide in maintaining teacher quality, implementing school curriculum and monitoring student welfare is crucial to school educational success. Private schools in Brunei Darussalam consistently produce excellent academic results in the national examinations and this has attracted intense public and media attention each time when the results are released to the press. Despite the academic success, private schools have remained outside the gauge of educational researchers. This paper is part of a larger study which investigated factors which contribute to private schools' educational success. In this paper, educational success of private schools from the principals' perspectives were examined. The study used a survey method in which a 25-item questionnaire was developed to gather the data. The data was analyzed descriptively and presented in percentages. The principals from 6 out of 9 private schools which offer secondary education in the state were invited to participate in this study. Results show that among the factors identified were principals' autonomy in running the schools, supports from the school boards, teachers' qualifications and work experience, teacher commitment and principals' expectations. These distinct attributes are important salient factors that contribute to private schools' success. The findings of the study are discussed.

Keywords: private schools, educational success, principals' perspectives

Introduction

Recent years have witnessed an increase in demand for private education and Brunei Darussalam is no exception to this a global trend. Irrespective of developed countries (CAPE, 2004; Roughman & Pugh, 2004; Sullivan & Heath, 2002) or developing countries (Kamwendo, 2010; Tooley & Dixon, 2005), parents are beginning to fathom that the best option for their children's education is none other than the private system. The dismal

quality and the deterioration of the academic standards of public schools is perhaps one of the most important reasons why private education has grown substantially over recent years (Hoxby, 2004; MacIver, 2000; Tooley & Dixon, 2005). Another salient factor is the excellent academic achievement of private schools (Cassidy, 1999; Lubienski & Lubienski, 2005; Sullivan & Heath, 2002) resulting more students from private schools go on to colleges and universities (Meikle, 2007; Rothstein et al., 1999; Teddlie et al., 2000; Tunku Abdul Aziz, 2006; Walford, 1991).

There is a combination of factors for explaining the academic success of private schools. As well as promoting an 'ethos' that gives greater attention to individual children in developing their academic potential (Bourke, 2002), private schools provide a disciplinary climate where children can concentrate on their studies in a conducive environment (Bourke, 2002; CAPE, 2006; Fuller, 2000; Griffiths, 1991; Teddlie et al., 2000; West et al., 1998). Many parents also believe that only the private system could deliver quality education (CAPE, 2006; West et al., 1998; Teddlie et al., 2000) because of their high expectations and ambitions for their children's education. In an effort to meet these expectations, the private system will systematically put more focus on preparing students for college education, and hence not surprisingly, greater attention is given to create an environment to help students in achieving their goals (Carnoy, 2000). Moreover, the smaller class size (Bourke, 2002; CAPE, 2004; Green et al., 2008) also meant that teachers are able to provide individual attention to students more effectively.

The educational success of private schools also depends on teacher quality. Private schools can hire teachers of their choice (Ballou & Podgursky, 1998; Ferrari, 2009; Green et al., 2008; Sullivan & Heath, 2002) and this freedom is considered central to their ability to provide a superior and different education (Finn et al., (2009). Certainly, such practice of teacher selection and retention allows schools to maintain rigorous academic requirements, and hence, not surprising, in terms of academic credentials teachers in private schools possess more upper second-class bachelor's degrees than state school teachers, are more likely to possess postgraduate qualifications and to be specialists in shortage subjects like mathematics and science (Green et al., 2008). Another fundamental aspect related to teacher quality is the type of employment contract held by teachers. Teachers in private schools hold non-permanent contracts, and as such the job demands greater accountability and those who lax will face the prospect of dismissal (Kingdon & Teal, 2005; Lassibille & Tan, 2001).

Equally paramount to the educational success, irrespective of private or public schools, is the leadership quality provided by the principals. Ubben and Huges (1987) reported that the leadership of the school is a strong determinant that differentiates between a mediocre school and an excellent school. As principals are the main administrators of the schools, they have a huge responsibility in building schools that promote teaching and learning (Peterson, 2002), in ensuring the smooth running of the schools (Goldring & Sullivan, 1996) and in creating an ideal environment for teachers and students (Leithwood, 2001). Principals especially in private school also have extensive influence over recruitment and retention of teachers (Billger, 2007) and this practice enables the schools to maintain their performance standards.

The purpose of this study was to investigate private schools' educational success from the principals' perspectives. This paper is part of the larger study on factors that contribute to private schools' academic success (Yong, 2011).

Method

In this study, 6 out of 9 private schools which offer secondary education were selected by convenience sampling. The schools were 3 Chinese schools and 3 mission schools. All the 6 principals volunteered and no attempt was made to identify their gender. The study used a survey method in which a 25-item questionnaire was developed to gather the data which was analyzed descriptively and presented in percentages. The 25 items were categorized into 7 factors.

Results and Discussion

Principal Autonomy and Role of School Board

There are 4 items under this category (Table 1). Results show that 83% of the principals were given a high degree of autonomy to run their schools. All the principals (100%) agreed that the school board has a great influence in making decisions on matters related to school policies. Each private school has a Governing Body responsible for, among others, managing budget, employing staff, upgrading equipment and implementing new strategies and initiatives. The Board of Governors normally consists of school head, members of school staff, members of local community and parents. The participation of schools' boards in governing the schools assists principals in running of the schools as two-thirds of them mentioned that this has made their work much easier for them while the other one-third disagreed. More school principals (67%) also seem to prefer that the role of the school board remains the same while 33% preferred it to be reduced (Table 1).

Table 1

Percentage response of principals on matters concerning autonomy and role of school board in running the schools

No	Statements	Response (%)				
		A	B	C	D	E
1	In the running of my school, the level of autonomy I have is A: very high B: high C: low D: very low	0	83.3	16.7	0	-
2	The role of the school board in deciding school policies is A: very high B: high C: low D: very low	50	50	0	0	-
3	The role of the school board makes the day-to-day running of the school for me. A: very easy B: easy C: no difference D: difficult	16.7	50	33.3	0	-
4	I would like the role of the school board in making decisions for the day-to-day running of the school to A: be greatly increased B: be increased C: remain the same D: be reduced E: greatly reduced	0	0	66.7	33.3	0

Teachers' Qualifications and Performance

Table 2 shows the 4 items classified under this category. In terms of teacher qualifications, 50% of the principals mentioned that more than 80% of their teachers have the relevant qualifications to teach the curriculum subjects assigned to them. The other 33% and 17% of principals mentioned 61-80% and 41-60% of their teachers respectively have the relevant

qualifications to teach their subjects. The principals also rated their teachers highly in terms of experience in teaching their specific subjects. In percentage distribution, 33% of principals mentioned more than 80% of their teachers, 50% of principals mentioned 61-80% of their teachers and 17% mentioned 41-60% of their teachers have sufficient experience to teach their subjects (Table 2). The percentage of teachers who seem to meet their principals' expectations in carrying out their work effectively is also high. About 83% of principals rated 61-80% of their teachers, and 17% of principals rated 41-60% of their teachers' performance is above their expectations. In terms of teaching quality, 17% of principals gave more than 80% of their teachers, 67% gave 61-80% of their teachers, and 17% gave 41-60% of their teachers' quality of teaching is good or better.

Table 2

Percentage response of principals on matters concerning teachers' performance and qualifications

No	Statements	Response (%)				
		A	B	C	D	E
1	The percentage of teachers who are qualified (in terms of academic qualification) to teach their assigned subjects is A: less than 20% B: 20-40% C: 41-60% D: 61-80% E: more than 80%	0	0	16.7	33.3	50
2	The percentage of teachers who are sufficiently experienced to teach their assigned subject is A: less than 20% B: 20-40% C: 41-60% D: 61-80% E: more than 80%	0	0	16.7	50	33.3
3	The percentage of teachers performing to my expectation is A: less than 20% B: 20-40% C: 41-60% D: 61-80% E: more than 80%	0	0	16.7	83.3	0
4	The percentage of teachers whose quality of teaching is rated good or better is A: less than 20% B: 20-40% C: 41-60% D: 61-80% E: more than 80%	0	0	16.7	66.7	16.7

Teachers' Commitment

Results in Table 3 show teachers in private schools are highly committed to their work. About 83% of principals rated highly, and 17% rated very highly of their teachers' commitment to their teaching duties. Similarly, teachers' commitment to non-teaching duties is also high as reported by all the principals in this study.

Table 3

Percentage response of principals on matters concerning teachers' commitment

No	Statements	Response (%)				
		A	B	C	D	E
1	The commitment of my teachers to their teaching duties is A: very high B: high C: low D: very low	16.7	83.3	0	0	-
2	The commitment of my teachers to non-teaching duties is A: very high B: high C: low D: very low	0	100	0	0	-

Monitoring of Teachers' and Students' Work

This category has 6 items (Table 4). It seems that teachers in private schools are observed in their classrooms albeit difference in frequency by their principals, deputy principals and subject heads. Specifically, 83% and 17% of principals checked their teachers teaching occasionally and rarely respectively. As in the case of the deputy principals, 20%, 60% and 20% of principals mentioned that their deputies checked their teachers teaching regularly, occasionally and rarely respectively. Subject teachers seem to have a bigger role in checking teachers' performance as 67% of principals mentioned that subject teachers checked teachers teaching regularly while 17% mentioned that the subject teachers checked occasionally and the same percentage mentioned that the teachers were checked rarely.

The same observation was obtained in terms of the frequency of checking students' work by principals, deputy principals and subject heads. Results show that about 83% and 17% of principals mentioned that they checked students' work occasionally and rarely respectively. More inspection of students' work was carried out by deputy principals as 40% and 60% of principals mentioned that their deputies checked students' work regularly and occasionally respectively. As in the case of subject heads, the percentage distribution of principals was 17%, 67% and 17% who mentioned that their subject heads checked students' work very regularly, regularly and occasionally (Table 4).

Table 4

Percentage response of principals on matters concerning monitoring of teachers' and students' work

No	Statements	Response (%)				
		A	B	C	D	E
1	I go into classrooms to check on teachers' teaching A: very regularly B: regularly C: occasionally D: rarely E: very rarely	0	0	83.3	16.7	-
2	My deputies go into classrooms to check on teachers' teaching A: very regularly B: regularly C: occasionally D: rarely E: very rarely	0	20	60	20	-
3	Subject heads go into classrooms to check on teachers' teaching A: very regularly B: regularly C: occasionally D: rarely E: very rarely	0	66.7	16.7	16.7	0
4	I check students' written work A: very regularly B: regularly C: occasionally D: rarely E: very rarely	0	0	83.3	16.7	-
5	My deputies check students' written work A: very regularly B: regularly C: occasionally D: rarely E: very rarely	0	40	60	0	0
6	Subject heads check students' written work A: very regularly B: regularly C: occasionally D: rarely E: very rarely	16.7	66.7	16.7	0	0

Exam Performance Expectations

Results in Table 5 show that principals in private schools have high expectations for their students' exam performance. In the public exams for Year 6 students, 83% and 17% of

principals were confident that 61-80% and more than 80% of their students will pass the PSR examinations. Similar percentage distributions of principals were confident on their students' performance in public exams for Year 9 or PMB exams (Table 5). As for the BC-GCE 'O' level exams, 100% of principals believed that more than 80% of their students will pass the exams for Year 11.

Table 5

Percentage response of principals on matters concerning exam performance expectations

No	Statements	Response (%)				
		A	B	C	D	E
1	The percentage of students performing to my expectation in <i>PSR</i> (Year 6) exam is A: less than 20% B: 20-40% C: 41-60% D: 61-80% E: more than 80%	0	0	0	83.3	16.7
2	The percentage of students performing to my expectation in <i>PMB</i> (Year 9) exam is A: less than 20% B: 20-40% C: 41-60% D: 61-80% E: more than 80%	0	0	0	83.3	16.7
3	The percentage of students performing to my expectation in BC-GCE 'O' level exam (Year 11) is A: less than 20% B: 20-40% C: 41-60% D: 61-80% E: more than 80%	0	0	0	0	100

Students' Application for Enrolment

Results in Table 6 provide a glimpse of the demand for private education in the country. At the preschool level, two-thirds of the principals mentioned that the number of applicants was less than the vacancy while one-third mentioned it was equal to the vacancy. At Year 7 level, the percentage of principals mentioned the number of applicants was less than, equal to and more than the vacancy was the same (33.3%). At Year 10, the percentage of principals mentioned the number of applicants less than, equal to and more than the vacancy was 17%, 50% and 33% respectively. It seems that there is an increase in demand for private education from preschool to upper secondary level.

Table 6

Percentage response of principals on matters concerning students' application for enrolment in their schools

No	Statements	Response (%)				
		A	B	C	D	E
1	Each year the number of applicants to the pre-school classes is A: less than the vacancy B: equal to the vacancy C: more than the vacancy	66.7	33.3	-	-	-
2	Each year the number of applicants to the Form 1 (Year 7) classes is A: less than the vacancy B: equal to the vacancy C: more than the vacancy	33.3	33.3	33.3	-	-
3	Each year the number of applicants to Form 4 (Year 10) classes is A: less than the vacancy B: equal to the vacancy C: more than the vacancy	16.7	50	33.3	-	-

Students' Command of English, Schools' Facilities and Resources, and School Standing

Students' command of English in private schools is high as 100% of principals cited this to be the case with their students (Table 7). The schools also have adequate facilities and resources for teaching and learning purposes. This was indicated by 83% of the principals

while 17% of the principals indicated otherwise. In terms of school standing, 50% of principals mentioned that their schools are among the top 3, 33% mentioned that their schools are in the 4th-6th position and 17% mentioned that their schools are in the 7th-9th position.

Table 7

Percentage response of principals on matters concerning students' command of English, schools' facilities and resources, and school standing

No	Statements	Response (%)				
		A	B	C	D	E
1	The command of English of my students is A: very high B: high C: low D: very low	0	100	0	0	-
2	To provide quality education, the facilities and resources we have are A: more than adequate B: just adequate C: inadequate	16.7	66.7	16.7	-	-
3	The current standing of my school in Brunei Darussalam is A: top 3 B: 4th – 6th C: 7th – 9th D: 10th-12th E: 13th and above	50	33.3	16.7	0	0

Conclusion

This study further unveiled the policies and practices of private schools from the principal's perspectives when these findings are considered together with previous studies (Mohidin & Yong, 2009; Yong, 2004, 2007, 2011).

An important finding of this study is the high degree of autonomy given to principals in the day-to-day running of the schools. The supports from the schools' boards on matters concerning schools' policies and practices enable the principals to carry out their administrative duties and responsibilities effectively.

Teachers in private schools are highly qualified and teach subjects which match with their areas of expertise. This concurs with the findings of an earlier study by Yong (2011). Furthermore, teachers are highly committed to teaching and non-teaching duties and this commitment is above the level of expectations of the principals. They have to work hard and prove themselves worthy of their tasks to fulfill their employment contract. Teachers in private schools are also frequently being observed especially by their subject heads. This practice is part of the schools' policy in monitoring and retaining quality teachers. Similarly, students' work is also subject to scrutiny by principals, deputies and subject heads. This is to ensure that teachers are not lagging in carrying out their tasks.

Principals have high expectations for their students and are confident that their schools will maintain their academic excellence. Private schools have high standing among other schools in the state. This has enabled the schools to attract parents who have high aspirations for their children's education and who can afford the fees. In addition, principals reported that their students' English proficiency is high and their schools have adequate facilities and resources for teaching and learning. These are some of the factors that contribute to private schools' educational success.

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Development of an Instruction Model on Local Wisdom based on the Experience Teaching Approach Using the Participation Process for Elementary Students

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Abstract

The purposes of this study were to (1) Development of an Instruction Model on Local Wisdom based on the Experience Teaching Approach Using the *Participation* Process (2) to study the result of an Instruction Model on Local Wisdom based on the Experience Teaching Approach Using the *Participation* Process s to enhance knowledge ,practice and the love of locality awareness.

These steps consisted of: **1.** Development of an Experience-Based Local Wisdom Instructional Model Using the *Participation* Process Including: 1) study analyzed baseline data, philosophy of education, framework concept, theories. 2) creating a model of teaching and learning: determine the components of the model. 3) documentation style of teaching: manual format, learning units, lesson plan. 4) monitoring patterns of teaching and learning styles test documentation was assessed by experts. 5) revised pattern of teaching and learning model documentation. **2.** Conducting a learning and teaching trial process using teaching materials Including: 1)built and the efficiency of the tool: given aims, related literature texts, determine the kind of tools and methods, the contents of the tool, tools and manual tools, the evaluation form to the advisors and experts consider that the structure content and appropriateness of language, improve, brought to trial. 2) conducted experiments using a model of teaching and learning.preparation before teaching, pretest, teaching, posttest. **3.** Assessing the outcome derived from using the learning and teaching process's effectiveness 1) assessment of the trial form: knowledge,practice and the love of locality awareness. An Instruction Model on Local Wisdom based on the Experience Teaching Approach Using the *Participation* consisted of involving : 1) Principles / concepts 2) The purposes including: to enhance the knowledge of local wisdom, to enhance practice side local wisdom,to enhance the love of locality awareness. 3) An instruction was as follows : Step I preparation including : Defined roles Including, Define the initial terms of instruction Provides. Step 2 teaching activities including: 1. Concrete Experience 2. Reflective Observation (Reflect)Students present their knowledge by speaking / writing.3. Abstract Conceptualization (Conceptualize)- A summary of / mind mapping.4. Active Experimentation (Apply)- Provide teacher / writing. Step 3. Assess local knowledge, practices and the love of locality awareness. 4) Consequences for learners

Keywords : Local Wisdom, Instructional Model , Experience Teaching, *Participation* Process

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1. Introduction

The National Education Act of 1999 (amended 2009) section 22 specified that education management must include as a foundation principle that students be able to study and develop themselves, and must include the belief that students are most important. The process of education management must promote the development of students naturally and to their full potential. Section 23 emphasizes education management within systems, outside systems, and appropriate to temperament, giving importance to a holistic approach, morality, and learning process appropriate for the level of education. Section 24 promotes learning through real experience, practice, critical thinking, instilling moral values as objectives in every subject. Teachers and learners learn together from diverse sources in the community, giving rise to learning all the time, everywhere.

In the past, education was left to the community, such as family, temple, and other organizations. There were a variety of ways to educate children and people in the community both academically and vocationally by transmitting knowledge to the children consistent with the way of life of the villagers. This brought harmony and happiness to the community, which gave balance to Thai society while existing within religious teaching.

Later, the government controlled education by implementing educational systems from western countries, replacing local supervision of education. The government mandates that all schools in the country follow the same practices, causing communities to be left out. Students are required to learn material that is not relevant to their lives. This causes students to remain ignorant about some of the things closest to them. Schools and teachers throughout the country are merely representing the government, causing communities to be ignored, and to have no involvement in education consistent with their own needs, including bodies of knowledge in the community that are ignored. Learners learn things that are irrelevant to them, but remain ignorant of things that are close to them. This causes them to be unable to adapt and live in society happily. Material needs are replacing spiritual needs, causing problems in society. Regarding this, Dr. Prawet Wasee (1997) expressed the opinion that the biggest problem of our nation is the lack of living in balance. Increases in knowledge are not necessarily wisdom or local wisdom to help communities live in balance. The most important point is that wisdom is the wisdom to live in balance. The wisdom of villagers is a good source of knowledge that is ignored in education nowadays.

Villagers' wisdom or local wisdom is knowledge and experience that occurs in villages. Villagers use their experience and knowledge to help them solve problems in daily life by passing on accumulated knowledge and experience through the process of development at the appropriate time. Local wisdom is an alternative in solving the nation's problems by including education to develop learners to be fully functional individuals according to Objectives and Principles of National Education 1999 (Revised 2009). In order for Thai people to become fully functional human beings in body, spirit, intellect, knowledge and morality, having civilization and culture, to live happily with others in society, it is necessary to instill awareness and pride in being Thai citizens and to have local wisdom and universal knowledge. Schools should develop

curriculum consistent with the needs of communities, emphasizing the incorporation of local wisdom in teaching and learning. The Curriculum for Basic Education (2008) specifies the objective of developing an awareness of preserving culture, local wisdom, environment, volunteerism with the goal of building a better society and living together happily. All of this is meant to have learners learn to know themselves and their communities, which will develop a sense of belonging, pride, and connection. They will have creativity, critical thinking and problem-solving ability for themselves, their careers, and their communities.

At present, incorporating local wisdom is not widespread, and education is not consistent with the needs of communities. As a result, learners' skills and experience are not in line with the economy, society, culture, or the local environment. The research of Kittipat Sirisoot (1994), Son Watansin (2001), and Patwadi Udommonkul (2002) concluded that incorporating local wisdom in education met with problems including unqualified staff who lack the knowledge and understanding to implement local wisdom and don't have teaching skills. The staff don't have cooperation from the community. Budget was insufficient. The schools had no data collection about local wisdom and students didn't appreciate local art.

Therefore, local wisdom education is the role of all concerned parties including home, temple, school, community who participate in supporting and educating learners. Learners have to learn by doing so that they have real experience from the community. The National Education Council (2002) stated that learning is the key to the future. Education is comparable to society's pathway forward. Students are the heart of the transformation to life-long learning, with the ability to develop the entire transformative learning process immediately. That is, schools, communities, institutions, and private organizations cooperate to expand education to communities and nature with the belief that learning occurs everywhere, all the time. The community's sources of learning are numerous, established among organizations in the community, the way of life, making a living, traditions, ceremonies and the natural environment. Good learning will occur when all concerned parties have a network of linked experiences, giving rise to a learning, moral society (The National Education Council, the Learning Process from Sources in the Community and Nature. 2001) . Consistent with statements of Sumon Amornwiwat, students having a chance to go outdoors to experience nature, society, community, local wisdom, will give direct experience in learning. They can learn beyond the text book. Teachers get a chance to learn along with students. Based on The National Education Council (2002), learning occurs everywhere, all the time. Sources of learning in the community are numerous, including institutions, communities, making a living, traditions, ceremonies and natural environment. The process of learning is different from the process of learning in which the teacher is the center of attention. This kind of learning gives flexibility consistent with the needs and readiness of learners. Evaluation and assessment are appropriate to the level of learners. It's not necessary to have exactly the same kind of evaluation as in the classroom.

Principles and process of implementation of local wisdom are consistent with the concepts of experiential learning with emphasis on learning by doing by using direct experience to motivate students to reflect on their experience to develop new thinking, attitudes and skills into their new knowledge. (Pimpant Dechakhoopt. 2002). Experiential learning is a concept in education with the objective of learners building knowledge and experience based on the theory of Dewey, a psychologist, educator and philosopher who believed that education for human development was for everyone to develop an awareness of society. Awareness of society begins from birth when we don't know anything. Children experience situations in society as gradual stimuli. They will be less self-centered and conform more with society's expectations. Education

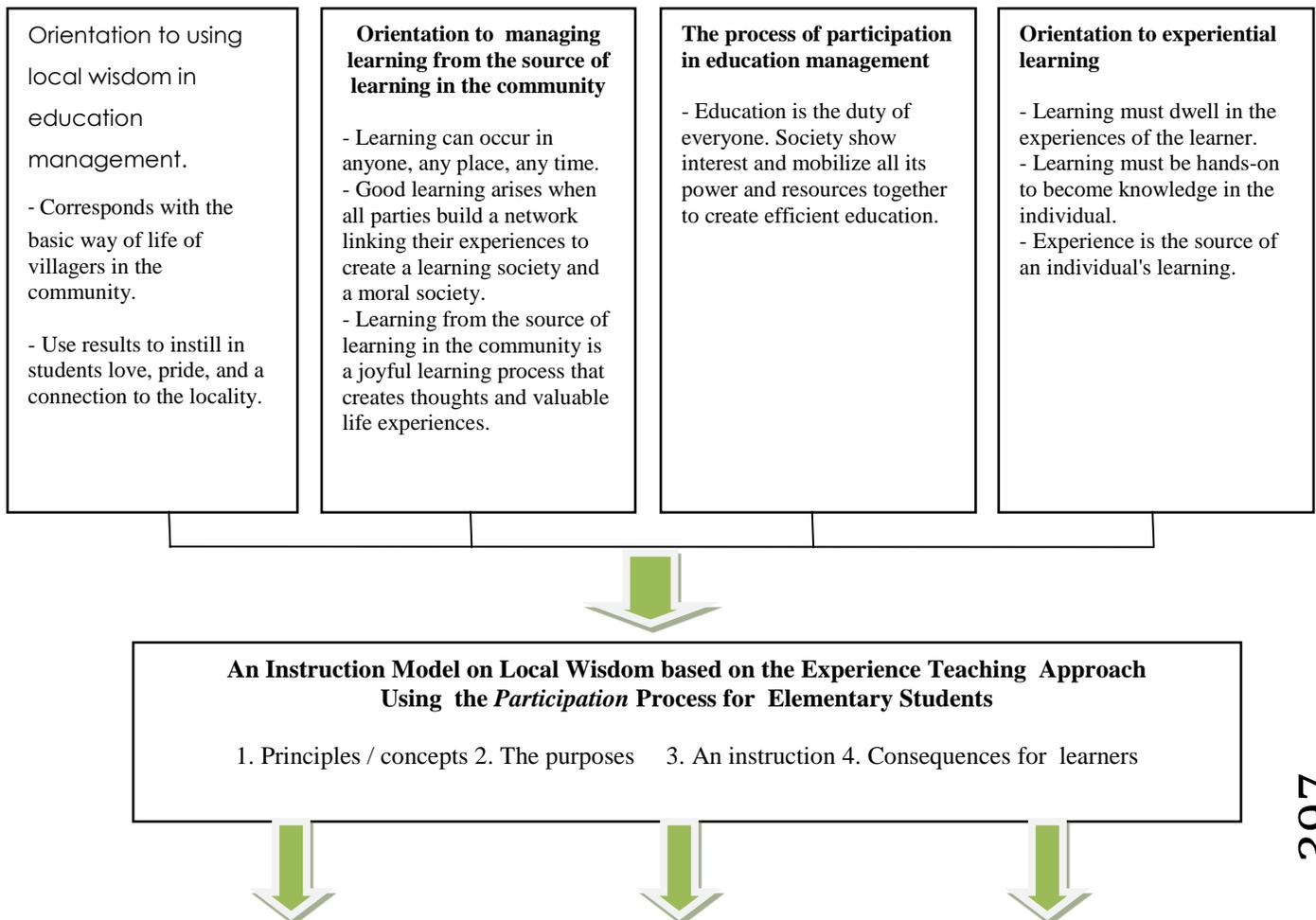
is the process by which society stimulates their thinking, making them realize their limits. They will behave appropriately to become good members of society. Dewey believed that schools are the life in society in which children will have the opportunity to share what they have to help build a better society (Lewiz, 1994).

The study of related literature found that Thailand has no systematic teaching and learning of local wisdom for schools to be used as a pathway to adapt teaching. Accordingly, this researcher is interested in developing systematic teaching and learning, implementing local wisdom based on experiential, participative teaching for elementary students to improve learning based on the education principles of the National Education Act 1999, (Amended 2002) and the objectives of the standard curriculum for basic education 2008. This will be used as a guide to implement teaching and learning of local wisdom throughout Thailand.

2. Research Objectives

The objectives of this research were (1) to develop an Instruction Model on Local Wisdom based on the Experience Teaching Approach Using the *Participation* Process (2) to study the result of an Instruction Model on Local Wisdom based on the Experience Teaching Approach Using the *Participation* Process s to enhance knowledge, practice and the love of locality awareness.

3. Research Conception Framework



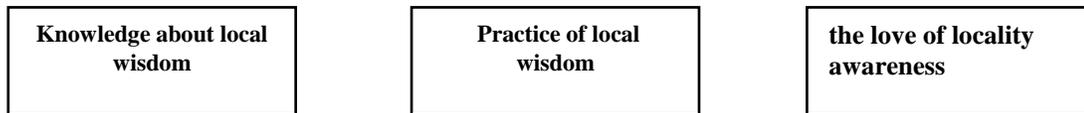


Figure 1 : Framework for developing an Instruction Model on Local Wisdom based on the Experience Teaching Approach Using the *Participation* Process for Elementary Students

4. Methodology

The population used in this research is elementary students in schools within Lampang Education District 1.

The sample group used in this research is grade 6 elementary students in a school within Lampang Education District 1. The school was randomly selected from a sample of schools interested in applying to participate in this project.

The content used in the research is content from ten knowledge bases of local wisdom. The time used in this research is two hours per week for 18 weeks for a total of 36 hours.

Variables

Independent variables include:

Instructional methods based on local wisdom using experiential teaching and participative learning.

Dependent variables include:

Knowledge about local wisdom, the practice of local wisdom, and sense of belonging.

This research is the development of learning and teaching local wisdom according to experiential teaching by using a participative process for upper elementary students. The researcher studied content and previous relevant research to be used as a framework. The theory used in implementation of this research involved six parts: Concepts of developing teaching and learning; Concepts of experiential learning; Concepts of local wisdom; Concepts of participative learning; and relevant research.

This research consists of the following steps:

Part 1 Develop a form which includes:

1. Analyze basic data, concepts of educational philosophy, frameworks, relevant theory and specify elements of teaching and learning.

2. Develop forms of learning and teaching:

Specify elements of teaching and learning including principles and concepts, objectives, management of learning and teaching, and expected results for students.

3. Develop teaching materials

1) Teaching manual for local wisdom based on experiential, participative learning.

2) Units of learning local wisdom

3) Management plan for experiential, participative learning of local wisdom consisting of ten aspects

4. Evaluating teaching and learning materials by educational experts.

5. Improve teaching and learning materials related to experiential, participative local wisdom.

Part 2 Conduct experiments in teaching and learning using materials related to experiential, participative local wisdom.

Part 3 Evaluate teaching and learning based on experiential, participative local wisdom.

5. Results (An Instruction Model on Local Wisdom based on the Experience Teaching Approach Using the *Participation*)

The results of **an Instruction Model on Local Wisdom based on the Experience Teaching Approach Using the *Participation* Process for Elementary Students** are as follows:

1. Principles / concepts

Learning from the source of learning in the community by using a process involving home, temple, schools and community. Emphasize and create a variety of experiences, resulting in happiness, creativity, critical thinking and valuable life experiences consistent with the way of life in the community, pride, and a sense of belonging.



2. The purposes

- 1) to enhance the knowledge of local wisdom.
- 2) to enhance the practice of local wisdom
- 3) to enhance the sense of belonging.



3. An instruction

Step 1 preparation.

1. Defined roles.

- Teachers.
- The students.
- Participants

2. Define the initial terms of teaching and learning.

Step 2 instruction activities.

Step 3 measurement and evaluation.

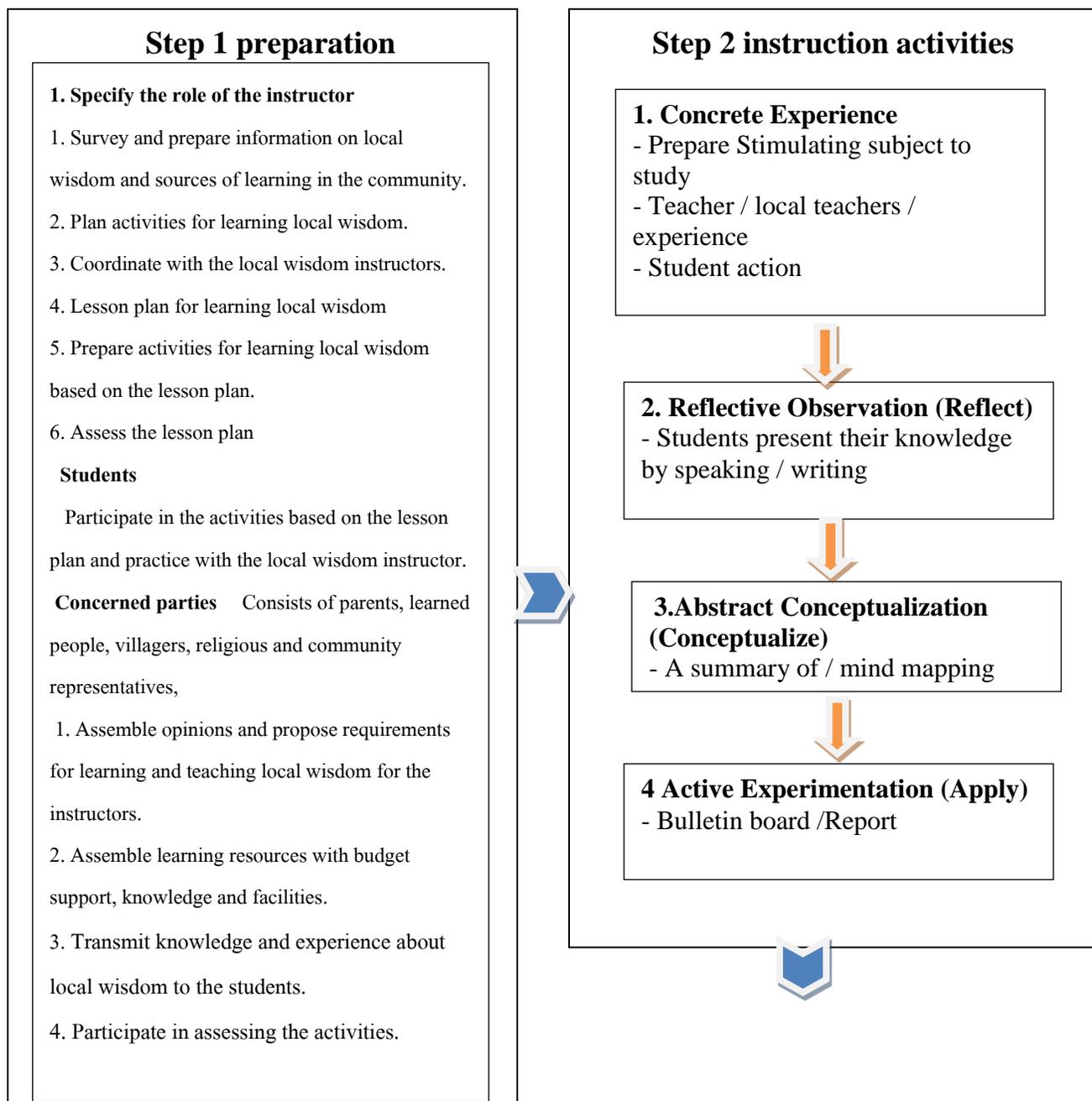


4. Expected results for learners

Learners will gain knowledge and understanding about the subject matter of local wisdom. It will help to develop the ability of the learners in the practice or expression of local wisdom and develop local awareness.

Figure 2 : an Instruction Model on Local Wisdom based on the Experience Teaching Approach Using the *Participation* Process for Elementary Student

3. An instruction



2. Specify initial agreement on the lesson plan

Give students the opportunity to learn from learning sources in the community.

Step 3 assessment

1. Assess local knowledge
2. Assess local practices
3. Assess the love of locality awareness

The results of an Instruction Model on Local Wisdom based on the Experience Teaching Approach Using the *Participation* Process for Elementary Students were 3 steps consisted of:

1. Development of an Experience-Based Local Wisdom Instructional Model Using the *Participation* Process Including: 1) study analyzed baseline data, philosophy of education, framework concept, theories. 2) creating a model of teaching and learning: determine the components of the model. 3) documentation style of teaching: manual format, learning units, plan. 4) monitoring patterns of teaching and learning styles test documentation was assessed by experts. 5) revised pattern of teaching and learning model documentation.

2. Conducting a learning and teaching trial process using teaching materials Including: 1) built and the efficiency of the tool: given aims, related literature texts, determine the kind of tools and methods, the contents of the tool, tools and manual tools, the evaluation form to the advisors and experts consider that the structure content and appropriateness of language, improve, brought to trial. 2) conducted experiments using a model of teaching and learning. preparation before teaching, pretest, teaching, posttest.

3. Assessing the outcome derived from using the learning and teaching process's effectiveness 1) assessment of the trial form: knowledge, practice and the love of locality awareness.

An Instruction Model on Local Wisdom based on the Experience Teaching Approach Using the *Participation* consisted of involving (1) the principle (2) the objectives (3) the content

of local wisdom (4) the learning of process (5) the assessment and taking into account the data such as frequency, percentage, average, standard deviation and ANCOVA.

7. Discussion

An Instruction Model on Local Wisdom based on the Experience Teaching Approach Using the *Participation* Process for Elementary Students included 3 step : Development of an Experience-Based Local Wisdom Instructional Model Using the *Participation* Process , Conducting a learning and teaching trial process using teaching materials and Assessing the outcome derived from using the learning and teaching process's effectiveness. This model consisted of involving (1) the principle (2) the objectives (3)the content of local wisdom (4) the learning of process (5) the assessment and developed by the following the steps of instruction model development. This was in accordance with the concept of Thisana Khaemmani(2545) and concept an Experiential learning of Kolb (1984)

8. Suggestions for utilize the research results

1. The school and the community should collect information on various aspects of local wisdom and a commitment to education in the past.
2. Should arrange a meeting between teachers and staff community to exchange ideas about problems, operations which it is for the improvement and development of teaching.

9. Suggestions for further research

1. Development model for teaching local knowledge. Should take into account the context and needs of the students in each area
2. Should find ways to encourage participants to participate in the learning management of local wisdom

10. References

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Teachers' Perceptions of Teaching on Challenging Times: Findings from a 3-Year Research Project

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Abstract

This paper draws from a broader piece of research aiming at investigating teachers' work in a context of austerity and the conditions for teachers to exercise leadership. It reports on findings from a 3-year research funded project (PTDC/CPE-CED/112164/2009) from the perspective of the teachers. Thus, the goals of the project are: i) to understand the wider social, cultural and political setting and the policy environment in which teachers' work is framed, especially in terms of challenges and opportunities; ii) to analyse the professional and organisational culture and structures of the schools in which teachers work; iii) to understand the ways in which teachers construct their professionalism; iv) to develop strategies in order to enhance teacher leadership in schools. A mixed-method research design was devised, including a national survey on teacher professionalism and wider policy context of teaching; interviews to key informants about professional culture and organisational features of the schools; focus group; and the development and evaluation of strategies to involve teachers exercising leadership in their schools. In total, 2702 teachers from mainland Portugal responded to the questionnaire which was administered online. Also, 10 schools participated in phase two including interviews to the principal, to teachers and students. Findings will be presented according to the following main themes: key dimensions of teachers' work and school culture, participation in INSET activities and professional development opportunities at school. This project seeks to contribute to inform policy and practice in improvement efforts and educational reform and to serve as a basis for further research, especially at a time of challenging circumstances in Portugal at the economic, financial and political level with impact upon Education in general and teachers' work in particular. Implications for teacher development and professionalism will be discussed.

Key words: teachers' work, school culture, professionalism

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Dialogic Teaching: How to Situate Dialogue Back in Classrooms

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Abstract

Dialogic pedagogy is any educational practice which values and gives priority to “dialogue” in teaching and. According to Alexander (2006), dialogical education stimulates pupils’ activity through communication and work with language; it encourages their thinking and deepens their understanding. Nystrand et al. (1997) points out that classical communication (based on the I-R-F structure) leads to a situation where the recalling of factual information and guessing of the correct answer substitutes thinking. Dialogical education is hence a certain type of communication between the teacher and the pupils that is marked by the presence of higher cognitive processes. Another important feature of dialogical education is that pupils are engaged and since they are given a certain amount of autonomy they can influence the course of actions in the classroom.

In the last 40 years of research of classroom talk from Mehan (1979) to nowadays, we could see that the dominant structure of talk is still the IRF monologic structure. Therefore the aim of our project is to investigate the potential of the concept of dialogic teaching in the milieu of secondary schools. The main aim of the proposed project is to find out when and under which conditions a change can occur in the communication between teacher and pupils. Hence, (i) we will situate the theoretical concept of dialogic teaching in a Czech scholarly milieu; (ii) in the process of participatory action research, we will develop the theoretical concept in the form of situated dialogue which can be implemented in direct teaching; (iii) by experimentation, we will document how such a change in communication setting influences communication structures and pupil performance.

Keywords: Educational communication, Dialogical teaching, Scaffolding, Action research, Experiment

Towards Quality Early Childhood Education in Oman: Moving from Licensure to Accreditation

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Abstract

Funded by his Majesty Sultan Qaboos Strategic Research Fund, this research is designed to: 1) pave the road towards a national accreditation system for early childhood programs based on global quality standards, 2) provide empirical data of the quality of programs in Oman and 3) provide policy makers with empirical data for incorporating early childhood education into the current public educational system. The National Association for the Education of Young Children's (NAEYC) Observable Criteria tool (OCT) that is used for accreditation of quality early childhood education was used for the study. OCT focuses on best practices in the field and covers ten standards that are characteristics of quality programs. These are: relationships, curriculum, teaching, assessment, health, teachers, families, community relationships, physical environment, and leadership and management. OCT was adapted for the study to create Oman-specific guidance that included cultural adaptations through contextualization. These adaptations are in conformance with standard practices of Oman. The contextualized version was used to collect observational data from a stratified sample of early childhood programs from all regions of Oman. Data collectors were trained for up to three weeks to reliability in using the OCT by two trainers from NAEYC. Preliminary results from the region of Muscat suggests, for the most part, that quality of early childhood education programs is far below than was initially expected across all standards of quality and best practices. A conclusion was reached that OCT may be used as a quality improvement system to raise quality of programs in Oman. (250 words)

Key words: Early Childhood Education, Quality, Best Practices, Standards

The Challenges of Teacher Leaders in Nigeria Public Secondary Schools



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Abstract

School leaders in Nigeria are facing challenges due to rapid technological advancement, knowledge economy coupled with complex cultural and political developments which demand for improved students performance and effective leadership in schools. The paper explores teacher identity from the perspective of teachers and the society and the role they play in school improvement. It investigates the challenges facing teachers in the discharge of their duties in five public secondary schools in an educational district in Lagos. Data were gathered through semi-structured interview with three principals, three vice principals, nine teachers and a Tutor General/Permanent Secretary (TGPS) of an Education District in Lagos, Nigeria. The findings from the research reveals that organisational structure, political, social, religious factors as well as teachers attitudes affects effective teacher leadership in Nigerian secondary schools. The paper suggests that for Nigeria to be a world economy in 2020 teachers must be alive to their professional responsibilities, politicisation of education must be removed and teaching given its right place.

Keywords: identity, school leadership, challenges

Introduction

The challenges teachers are facing in Nigeria are multidimensional. These problems are not helping effective teaching and learning processes. The job description of today's school leaders is a far cry from what was obtained years ago due to knowledge economy and technological advancement (Egwu, 2009.p.15). Equally, there has been increased pressure from both parents and government to improve learners' performance and school leadership in Nigerian public schools (Abari 2005. p.131), as school leadership is about providing vision, direction and support towards a different and preferred school (Harris & Muijs, 2005.p.15). Studies indicated that effective school leadership makes a significant difference to schools and students learning

outcomes (Bush, 2009.p.375; Day, Leithwood, Sammons, Hopkins, Harris, Gu, Brown, Ahtaridou & Kington, 2009.p.2; & Post Primary Teaching Service Commission, 2003.p.4). The roles and responsibilities of teachers as leaders are some of the critical concepts in achieving these goals. Despite the significant roles performed by teachers, the role of a teacher as a leader in most Nigerian schools is limited to teachers' duties and responsibilities (Aluede, 2009.p.41). Research in educational leadership are dominated by traditional views of leadership which recognize principals as solitary leaders while ignoring the contributions of non-principal staff in schools (Egwu, 2009.p.30; Heck & Hallinger, 1999.p.141; Lassa, 2006.p. xxvi; Stewart, 2003.p.19). Feiman-Nemser (2001.p.1014) claimed that if teachers' roles are not redefined to be part of decision making process, they are unlikely to teach in ways that meet the demanding new standards. This view is supported by Childs-Bowen, Moller & Scrivner (2000:8) who posited that 'redefining teachers as leaders will lead to school improvement and learners outcomes.

The demand for improved school leadership and learning outcomes made researchers to advocate for multiple leaders in schools (Barth, 2001.p.455; Fullan, 1994.p.246; Spillane, 2006.p.15). This demand provides a unique departure from the traditional understanding of school leadership. It sees leadership not as a role or function, but rather as relationships among people within an organisation (Harris & Muijs, 2005.p.14). The new form of leadership in schools is beyond headship or a formal position and thus described as teacher leadership. It emphasizes working collectively for school development (Grant, 2006.p.416; Mayo, 2002.p.28; York-Barr & Duke, 2004.p.288). Teacher leadership is about the discovery of teachers' potentials for collaboration in school leadership (Institute of Educational leadership, IEL, 2001.p.4).

Researchers acknowledged that teacher leadership is essential in schools in order to improve students' learning outcomes and that teachers' are the key to educational reforms (Supovits, Sirindes and May 2010.p.4, IEL, 2001.p.2 and Darling-Hammond 1999 cited in IEL, 2001.p.6). The report of the Institute of Educational Leadership in 2001 shows that teacher leadership is about tapping and mobilizing untapped attributes of teachers' to enhance learners' achievements and shared leadership in the daily activities of the school (IEL, 2001.p.4). Miller, Moon and Elko (2000.p.4) assert that:

Teacher leadership generally refers to actions by teachers outside their classrooms that involve an explicit or implicit responsibility to provide professional development to their colleagues, to influence their communities or districts, policies or to act as adjunct staff to support changes in the classroom practices among teachers.

In this regard, Patterson and Patterson (2004.p.4) viewed a teacher leader as someone who works with colleagues for the improving of teaching and learning, whether in a formal or informal capacity. Empirical studies on teacher leadership illustrate its potential as a successful school reform strategy that can improve teaching and learning (Poekert 2012.p.120).

The aim of this study was to redefine teacher leadership in public secondary schools by examining teachers' perception on leadership, leadership guiding policies and strategies needed to promote teacher leadership in public secondary schools. The study attempts to answer the question. What challenges are teacher facing as leaders in Nigerian Secondary Schools?

Statement of the Problem

In recent times, aggression, unhealthy behavior, indiscipline and violence in schools is on the increase and have precipitated to falling standards in education (Olujuwon, 2007.p.39; Duze & Ogbah, 2013). Teachers are recognised as agent of change and are instrumental to educational reforms and school improvement (Aluede, 2009.p.41). In spite of teachers' essential services to national development in the country, the public did not accord appropriate respect to teaching when compared to with other professions (Adelabu, 2005.p.5). In addition, the way and manner in which teachers perceived themselves in the society has a lot to be desired. The professional and personal identity of teachers is completely ignored in reform strategies and educational innovation policies (vanVeen, Slegers & van de Ven, 2005.p.918).

The Research Design

This study adopted a qualitative multiple case study. Qualitative research helps in understanding issues from participants' view points (Struwig & Stead, 2004.p.56). Qualitative research involves the why, what or how questions that "stress how social experience is created and given meaning (Denzin & Lincoln, 2003.p.165). The use of case study helped me to get a better understanding of teacher leadership in schools and provide answers to the why, what, how questions (Saunders et.al 2009.p.146). The researcher had a face-to-face interaction with participants in the process of data collection and thus understands their experiences as it relates to leadership in schools.

The Research Sample

The study was carried out in five public secondary schools in Education District V of Lagos State, Nigeria. Education District V is one of the six Education Districts created in 2005 in Lagos State as part of the Education Reform. The Educational District has educational, economic and social viabilities. The five schools are categorized as urban in Lagos and Lagos is the commercial nerve centre of Nigeria. These schools are funded solely by the Lagos State Government and the teachers are full time staff. In addition, they are members of the Nigeria Union of Teachers and are certified by the Teachers Registration Council of Nigeria (TRCN). Only experienced teacher with more than 20years of teaching and has leadership positions participated in the study.

One of the schools is situated in a military barrack, two in an estate, one very close to the two seaports in Lagos and one situated very close to a major highway. The sample for the study consists of nine teachers, three Vice Principals, three Principals and one Educational Administrator in Education District V. The participants were purposefully selected because they are major stakeholders and believed to be competent to provide answers to the research question.

Data Collection

Semi-structured interviews were conducted with the sixteen participants. Documentary evidence was used as background materials such as the National Policy on Education. I extracted the purpose and goal of teacher education which is to produce motivated, conscientious and efficient teachers for the Nigerian educational system. The interviews were audio taped for easy verbatim transcriptions of participants responses in order to enhance credibility and trustworthiness on

how teachers gain, exercise and maintained leadership in schools. The semi-structured interview was used to understand teachers' perception on redefining teacher leadership (Robson, 2002:59) and provides opportunity to probe for answers or for participants to explain or to build on their responses (Saunders, Lewis & Thornhill, 2009.p.324). Data from the semi-structured interview and documentary evidence was triangulated in order to establish the credibility of findings and easy interpretations (Struwig & Stead, 2005.p.56).

Data Presentation

Data was presented using direct quotes and comments of participants. They were analyzed using content analysis and discourse analysis. Content analysis relies on compressing "many text words into fewer content categories based on explicit rules of coding" (Stemler, 2002.p.5). Discourse analysis is the interaction and understanding the literal meaning of language of people in their day-to-day activities (Shaw & Bailey, 2009.p.413). In the data analysis, the researcher used the three interrelating processes of data reduction, data display and data verification as suggested by Miles and Huberman (1994). Constant comparative method was also used which begins with an inductive category coding and a simultaneous comparison of all units of meaning across categories. The verbatim transcriptions of all the 16 interviews were made and typed using Microsoft word. The transcriptions took one hour to three hours each to be completed. I cross checked and corrected minor corrections and later identified codes from the interviews which were later turned into categories and them formed the themes of the research.

Ethical issues

Ethical issue has to do with "the protection of dignity of participants and the publication of the information in the research" (Fouka & Mantzourou, 2011.p.3). For this study, approval was granted by the Ethics Committee, Faculty of Education, University of Johannesburg and the Education District V in Lagos Nigeria. Letters were also sent to the five schools and sensitization session was conducted with participants about the objectives of the research. Furthermore the issues of informed consent, anonymity and data management were observed throughout this study.

Credibility

In ensuring credibility, at each interview sessions with participants, the researcher re-stated the objectives of the study and stressed the issue of informed consent and anonymity. The interview questions were given to each of the participants, thus to help them prepare for the interview and to assure them that the exercise was purely an academic. Based on the research questions, the findings are presented and discussed with respect to the following themes. In addition, I transcribed the semi-structured interviews verbatim and did the analysis of data from the perspectives of the participants. Above the use of semi-structured interviews and documentary analysis helped in enhancing the credibility of the data. Furthermore, the interview questions were checked by my supervisor in order to ensure that they capture the information needed. The transcriptions and findings were presented to the participants to determine if their expressions were truly captured.

Results

The process of analysis of the enormous amount of data collected through semi-structured interview and document analysis led to the categorisation of major themes which translate into different challenges teachers are facing in schools. Such as: indiscipline, challenges from parents, societal perception of teachers, non-implementation of policies, political interference, socio-cultural and religious factors.

Indiscipline

In response to the challenges facing teachers, four teachers and one principal mentioned indiscipline as an act which hinders effective teaching and learning processes. An excerpt from Orji one of the participants illustrates this:

In this school, there are cases during which students beat up their teachers and these students do not appreciate our efforts as teachers. Some of them are determined not to learn as a result, they smoke, drink and fight a lot with themselves and with students from other schools. There are times when we seize cutlasses and other dangerous weapons from them.

The illustration given by Orji explained the current students' behaviour in Nigerian public schools and it reflects social degeneracy which permeates the Nigerian society. This delinquent behaviour is inimical to effective teaching and learning and it jeopardise the future of Nigerian youth. The use of dangerous weapons portrayed schools as military training centres which impacts on the society thereafter. Indiscipline, therefore as a concept denotes field of study, punishment either by external authority or by self in order to achieve certain feat. In the Nigerian teaching context an individual could deem to be undisciplined if he or she violates enshrined code of conducts for students or by deviating from prescribed ethical standards required of students. Some of the undisciplined acts could be lateness to school, fighting, drinking of alcohol in school or coming to school with dangerous weapons. Also, Olagboye (2004) classified indiscipline into four namely: moral, personal, safety/health, social and educational which hinders achievement of set goals. There have been reported cases all over the world about acts of violence or gangsters in schools which have claimed lives and properties and corroborated by this study. Indiscipline in schools is a major concern to educators, policy makers and the state (Olujuwon, 2007.p.44). In a study conducted in twelve Sub Saharan countries, Bennell and Akyeampong (2007.p.ix-x) identified Poor professional behaviour (lateness, absenteeism, laziness) seriously compromises schooling quality and learning outcomes...also that public school teachers often get away with under-performance and, at times, gross professional misconduct.

Challenges from parents

In education system, parents are one of key stakeholders. In this study, I was interested to understand challenges teacher are facing in schools. In this respect, three teachers and one vice principal participants discussed the challenges they face from parents. The participants said that while parents' are expected to contribute in the teaching and learning process, they seemed to be a clog in the wheel of progress. Clark, a Vice Principal explains that parents did not support teachers towards ensuring good conduct of their children. In particular she said:

The challenges that teachers are facing are mostly from the parents. A number of parents do not know their responsibilities. Many of them believed that their role end once they send their children to schools. They don't see teachers as partners in developing and in the progress of their children. So I think the major problem here is that, not all, parents appreciate the efforts made by teachers.

Clark assertion revealed that it is difficult for teachers alone to oversee students' behaviour which is requisite condition for effective learning. The quote further reveals that some parents do not appreciate the efforts of teachers in teaching. Certainly, this could be related to societal perception held towards teachers and the teaching profession altogether. In Nigeria, there are landlords(who are parents) that would not let out houses to teachers on the allegation that they are paid low salaries and wages as such they cannot afford and/or will disturb during payment of rent (Adelabu, 2005:8).

Inadequate facilities

In this study, findings revealed that inadequate facilities are a problem which affects effective teaching and learning process. This problem was mentioned by two teachers, two, Vice Principals (VPs) and the TGPS participants. In general, they said that inadequate facilities jeopardize efficiency in the teaching and learning processes. For example, Ade, a teacher said that: *"This school has the problems of tools. May be, it is because government has so many responsibilities. There are so many schools. Shortage of facilities jeopardizes efficiency.* This corroborates earlier assertion by researchers that inadequate facilities are the bane in the Nigerian educational industry (Ajeyalami, 2005.p.2; Olaniyonu, 2006.p.18-19 and Inuwa & Yusof 2012.p.2).

Societal perception of Teachers

The findings also revealed the low status held by the society towards teaching profession. Although teachers worked in hardship environment and they were regarded by the Nigerian society as lazy and without leadership capabilities. Winner had the following to say:

Teachers faced a number of challenges as leaders in Nigerian schools. The society viewed the teacher leader as somebody not capable of leading. The society as a whole thought that teachers are not doing anything despite the fact that they come to the school every day. The society did not consider teaching as an involving activity. At the end of the day you go home tired and even with stress. They think that we are not doing anything.

Winner's response revealed that there is a shift in teachers' recognition. For example, during the colonial era and a period after independence, Nigerian teachers were well respected as professionals, role models and with bundles of knowledge. During this time, the society depends on the teacher for the discipline of youth as well as their moral and academic development (Abraham, Ememe and Egu, 2012:15). They further pointed that teachers served in very powerful committees in the community because they were sources of wisdom and knowledge. With passage of time, the respect and status accorded teachers started dwindling, when the military and politicians started abusing and degrade teachers; coupled with the low salary of

teachers. Although this role has not changed but the society's conception of teachers has changed as teachers today are merely respected. The position of the teachers in national development has been stipulated in the National Policy on Education (NPE) 2004 edition. The document in section 70(a) observes that "no nation can rise above the quality of its teachers". While the policy recognized teachers as important stakeholders in national development, the same teachers are accorded secondary status in the community.

Non-Implementation of policies

There have been occasions in Nigeria, when the government reneges on agreements with teachers and schools are closed for months. In turn, this has caused untold hardship for parents and students. High, one of the participants:

I remember we went on a not too good a strike when we were meant to resume on the 24th of September, to press for TSA 27.5% (enhanced teachers salary scale) which was promised last year by the government. We had to call off the strike and here we are. So if the government refused to pay in January 2013, ah...ah there is nothing much some of us can do. Ehhh...I want to say that to a large extent, the government should try and draw a line between politics and the school system.

The aftermath of High's response was that teachers were unable to sustain the strike as the strike could not achieve its purpose and it disrupted the school academic calendar. It reveals how teachers are being regarded in the society. Teachers believed that they cannot make the government accountable for its promises. Distinguishing between politics and education will mean so much for the school system. Bennell and Akyeampong (2007:X1) in their study of twelve African countries reveal that Industrial action or the threat of industrial action among teachers is common in most of the case study countries. (See the International Trade Union Confederation, 2011 Annual survey of violations of trade unions rights in Nigeria). Increasingly frequent official and unofficial strikes are a clear signal of growing levels of dissatisfaction with pay and other conditions of service. Similarly, Ajeyalemi (2005.p.3) attests to the very low esteem accorded teaching as a career and the unsatisfactory reward system in most African countries.

Political Interference

The issue of government interference in education without recourse to the rule of law in Nigerian educational system has been on for some time. It was an issue identified by two teachers and one VP. It is an issue of "he who plays the pipe dictates the tune". The political influence on education was echoed by Loveth. She said:

Sorry to say this that politics have spoilt so many things in Nigeria. There are situations when you punish a student and the parent who is an influential person in government or a politician, issue an order restraining or querying the teacher not to punish the child again.

Loveth explanation reveals how politicians used positions to limit teachers responsibilities. Olujuwon (2001.p.5) highlight how some university administrators were removed by government and replaced with military men. The government influence is also revealed during promotion, selection and other issues in school administration.

Socio-cultural and religious factors

Two teachers respondents revealed that Nigeria as a country is not immune from religious, political and socio-cultural factors. With the Nigerian civil wars of 1967-1970, the various inter tribal wars; religious and political uprisings are well documented in literature. It could be said that some of government actions reinforced socio-cultural groupings in the country as Ifenyiwa (2002.p.24) noted that “religious or ethnic groups could seek to exert some influence on government”. Blames on this traced back during the colonial masters amalgamation of the country in 1914. This factor has permeated the entire fabric of Nigeria, leading to mistrust among colleagues as exemplified by Butter that:

The challenges faced by teachers as leaders in Nigerian secondary schools are multi-faced. We have social, economic, cultural and religious factors. Principally we have three religions in Nigeria, but we have to be factual to ourselves- two out of three are recognised- Islam and Christianity. When you cite a Biblical example during teaching, they will say you want to turn the school into a Christian school. If it is a Muslim and you cite Quran quotations, they say you want to turn the school into a Muslim school. All these things militate against effective leadership roles in our schools and that is the fact.

Butter’s illustrations show how religion is being used as a weapon of mistrust among colleagues and the use of religion to violates the principles of the Nigerian Constitution of 1999 version which specifies religious tolerance.

Discussions

This study investigated the challenges facing teachers in public secondary schools in Nigeria. Two methods of data collection namely, semi-structured interviews and documentary evidence were persuasively used. The study showed that problems facing teachers are artificial and they are caused by teachers, students, parents and government. Collectively, these challenges hamper effective teaching and learning process and teacher leadership in schools.

The findings are so important as they bring revealed the relationships in parents, teacher, community and students in the teaching and learning processes and the level of mistrust caused by religion among colleagues in schools. Consequently, the unfriendly, relationships affects the collaboration among colleagues. The available facilities in schools were not adequate to enable effective teaching and learning despite huge budgetary allocations to education. This will affect the year 2020 target in transforming the country. The use of strike as a weapon to settle disputes with the government, did not achieve its purpose. Instead strikes disrupt the academic calendar in Nigeria. Also, the low status accorded to teachers and teaching profession does impact in the innovation process. In particular, it erodes the long held role of teachers being “agent of change”:- The study corroborates earlier findings on challenges facing teachers in Nigeria Secondary schools by Ajeyalami (2005), Adenubi and Ndareke (2007) and Inuwa and Yusof (2012).

Limitations of the Study

The study is limited to full time staff in the five public schools in Education District V of Lagos State and their experiences must be considered in their own contexts. In addition, the study is located within the case study research design and limitations associated with case study have to

do with generalizations due to the few sample size. The researcher took all these into consideration in the process of data collection. Further research may want to look at the challenges teachers in public schools in other education districts of the state.

Conclusion

The study showed that the challenges faced by teachers artificial which could be solved through dialogue, trust, respect and collaboration in order to engender true academic environment. The findings revealed that inadequate facilities, indiscipline coupled with the, socio-cultural and religious factors affect teacher morale and job satisfaction and by extension affect the teaching and learning processes in schools. In addition, mistrust, low perception of teachers affects teacher performance in the discharge of their duties. The quest to put Nigeria in the map of the world by the year 2020 as an economic power can only be realised if teachers are provided with essential resources to transform the education industry. All these included but not limited to conducive teaching and learning environment, remuneration package and other allowances will lead to the realisation of Nigerian national educational goals.

Recommendations

Based on the findings in this paper, it is hereby recommended that:

1. There is need for a school of leadership where those taking up leadership appointments in schools are trained
2. Government should ensure that agreements reached with teachers are implemented. In order to fulfil teachers' rights and responsibilities and boost teachers' positions and personalities in the society
3. Collaborative learning and research should be encouraged between inter and intra schools and with agencies on education and the private sectors
4. Teachers should be more committed to their job. This will enhance their identity and values
5. Government should increase its budgetary allocation to education and ensure that the money budgeted is actually disbursed and judiciously utilised.

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Mirrors of Practice and Windows of Possibility: The Possible Effects of Digital Stories for Educators



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Abstract

The New Zealand Curriculum (NZC) Online digital stories are provided to support schools as they implement the New Zealand Curriculum. This research project explored the use and effect of these stories for the educators who create them and for those who view them.

Digital stories as windows of possibility were examined using an online survey, and four semi-structured interviews resulting in four case studies. Digital stories as mirrors of practice were examined through two group interviews resulting in two case studies.

It was found that the NZC Online digital stories were used as professional development resources and allowed educators to see and share the possibilities of curriculum practice. The research revealed that the stories were of sufficient complexity to be employed by a wide range of educators spanning different experience, roles, and sectors and that they had different uses and effects according to an educator's role or level of experience.

The digital story telling process was found to be a cycle of inquiry. The storytellers provided the story for the benefit of the New Zealand education community, however they found that the process was also beneficial for their school curriculum development and led to plans for further development. The process was not just one of telling the story of development, but was actually a step in the continual process of curriculum development for the school.

Purpose of the study

Traditionally classrooms have been private spaces (Anhorn, 2008; Schlichte, Yssel, & Merbler, 2005). This is changing in New Zealand through initiatives such as the Information and Communication Technology Professional Development Cluster Programme (Ham, 2009) that encourage educators to 'open their doors', and 'peer in through the windows' of other classrooms. Educators are learning through observing their own and others' practice, and engaging in reflective conversations with colleagues. This process of observation, reflection and change is also occurring at a whole-school level. Schools are sharing their systems, processes, and vision, and are collaborating for the benefit of all students.

The New Zealand Curriculum (Ministry of Education, 2007) encourages schools and teachers to examine their own practices through the “teaching as inquiry” model (p. 35) and the “school curriculum design and review” process (p. 37). The NZC Online website²⁰ was established to support these processes and the NZC Online digital stories were developed to help educators see what curriculum could look like in different schools and in different contexts.

This research set out to explore the use and effects, if any, of the NZC Online digital stories in supporting school curriculum implementation. The research was conducted in two parts with the first part addressing the question “What is it about you telling your story that is effective for me?” This question was enveloped in the metaphor *Windows of possibility* predicting that educators were using the stories as a window to see into other classrooms and engage with the possibilities of curriculum in New Zealand. The second question “What is it about me telling my story that is effective for me?” was described with the metaphor *Mirrors of practice* predicting that the storytelling process allowed those telling the story to learn from their practice reflected back to them.

Theoretical framework

Social constructivism situates understanding within culture and context. It assumes that reality is constructed through human interactions; that knowledge is constructed through social and cultural interactions; and that learning is a social process (Davis & Sumara, 2002; Kim, 2001; Mordechai, 2009). These three concepts are embedded in the development of NZC Online digital stories. The stories capture the ‘voices’ of participants as they interact with each other, the situation, and the NZC Online team. The story is then edited and presented back to the participants as a reflection of their practice. This social process has often led to further discussions about possible future actions for the school. Given the alignment of the notion of social constructivism with the way stories are captured it was decided this theory would be appropriate as an underpinning for this research project.

Method

The project was in two parts and used mixed methods. The first part, entitled *Windows of possibility*, looked at digital stories as professional development resources and employed an online survey and semi-structured interviews.

Data for the second part of the research project, entitled *Mirrors of practice* looked at the effect for educators as they took part in the production of an NZC Online digital story. Data was gathered using semi-structured group interviews and was presented using a case study approach. A case study is a choice of what is to be studied, a bounded system from which a story can be told (Stake, 2005). The bounded system for this part of the research project was the experiences of six educators who had taken part in the production of an NZC Online story.

Part one: Windows of possibility

Participants

²⁰ <http://nzcurriculum.tki.org.nz>

The online survey attracted 63 New Zealand participants, over 20 years of age, holding a role in the New Zealand education system.

Two primary teachers, a secondary classroom teacher, and a professional development provider took part in individual semi-structured interviews. One of the participants was a beginning teacher with two years experience; the other three participants had 10 or more years teaching experience. All four participants were less than 40 years of age.

Instruments

The online survey consisted of 14 items, and included Likert scale, open ended, and multiple option questions.

There is always a possibility of researcher bias when preparing responses for participants to select (Edwards Deming, 2006). The survey provided space for participants to provide general comments and observations, lessening this risk and broadening the range of responses.

The semi-structured interview questions explored and extended the responses provided in the online survey. The questions were not fully developed before the interview but rather used as a guide. The questions were based on the researcher's assumptions, which were arrived at through collaboration with colleagues. The questions were designed to test these assumptions as well as providing the opportunity to explore other possibilities.

Procedure

The online survey was distributed to approximately 5,500 recipients through the existing NZC Online communication channels – email, Twitter, and Facebook.

Participants provided consent and then answered the 14-question survey. The results of the survey were processed using SPSS software.

Interviews were scheduled with survey volunteers. The 20-minute interviews were conducted using Skype and recorded.

Transcripts were sent back to the participants who had the opportunity to make clarifications and additional statements before returning the transcript to the researcher. The transcripts were subsequently written up as four separate case studies.

Part two: Mirrors of practice

Data was collected using semi-structured group interviews, then compiled into two case studies.

Participants

Selected staff from one decile 9, co-educational, full primary school (years 1-8) were invited to take part in this research. This school was selected, as it was the most recent school to go through the NZC Online digital story telling process. Six teachers were invited, and subsequently agreed, to take part in group interviews. The participants consisted of three members of the leadership team and three members of a teaching team.

Instruments

Semi-structured interviews were used in a group setting. Guide questions were used as a starting point to explore the process of telling a curriculum digital story.

Procedure

The principal was contacted and permission sought for the researcher to contact staff involved in the story. The six participants were approached via email and provided with the research project information and asked to sign a consent form before the interviews were conducted.

Two group interviews were conducted and recorded using Skype. Interviews took approximately 40 minutes. Participants were given the option to make any clarifications, additions, or amendments to the interview transcript and send it back to the researcher.

Results

Part one: Windows of possibility

When comparing the data collected from the surveys and interviews, four main ideas arose:

- Digital stories had the potential to de-privatize the classroom space.
- The complexity and multi-layers portrayed in digital stories made them applicable to a wide audience.
- The digital stories provided a common referent for discussion about curriculum.
- The difference in a teacher's level of experience and role played a part in how stories were used.

Part two: Mirrors of practice

When examining the experiences of the six educators involved in creating a digital story five main ideas arose:

- Stories can expose the complexities of practice to those performing the practice.
- Stories are a site in themselves for professional practice to play out.
- Stories provide a potential space for the construction of knowledge-of-practice (Cochran Smith and Lytle, 1999).
- Knowing in action (Schon, 1995) can be revealed to those involved in the story.
- Multiple voices telling the same story reveals and connects practice.

Discussion

Part one: Windows of possibility

This research revealed that NZC Online digital stories provide a means for educators to experience a range of practices and increase the sphere of people from whom they can learn.

Participants reported using the stories to see what is being done in schools and classrooms (the content of the stories), how curriculum is being implemented (the form of the stories) and why curriculum is important in the wider scheme (the pedagogy of the stories). It appeared that different educators could gain different ideas from the same story. They could find information that related to their sphere of experience and need, so less experienced educators might concentrate on what is being done or how it is done, with more experienced educators noticing why it is being done. Interviews with three experienced teachers revealed they would look for the multiple ways that one idea may be played out across different schools. This would provide them with a range of ideas from different contexts to discuss with their staff and adapt for their particular school context. In contrast, an interview with a beginning teacher revealed that she used a story to examine a particular practice and break it down into the component parts that were missing from her own knowledge of the practice. The NZC Online digital stories present authentic moments of practice and as such have a complexity that allows different elements of the story to come to the fore according to the needs of the viewer.

Another concept highlighted by this research was one of serendipity. Educators may watch a story for one particular purpose, but during the viewing come away with completely different ideas or focus. One teacher explained, *“It is when I come away from a video that I thought - this has ignited another thought or idea.”* As the stories do not provide an interpretation of what is being portrayed, viewers are able to make their own interpretations. In this way, the stories allow educators to view the same practice multiple times through different lenses for different purposes.

This lack of interpretation also encourages discussion and collaboration for meaning making. Almost half of the participants stated they had used the stories to lead discussions with their colleagues, and half of the participants had taken part in discussions with colleagues about the stories.

The literature cautions that educators must be supported to recognize theory embedded in practice through guided viewing (Fong & Woodruff, 2003; Shulman, 1996; Timperley et al., 2007). What arose from this research was that some users of the stories were building a system of guidance and support around them. The case study participants described examples of using stories as part of a professional learning activity extended through the use of readings and support.

Part two: Mirrors of practice

The storytelling process undertaken by the case study school revealed a reflective cycle of inquiry where the process of reflection while preparing to tell the story led to action that led to further reflection.

There were two main findings when examining the process this school undertook in preparing to tell their story. Firstly, it was a daunting prospect for the school to share their practice on the Internet for scrutiny. The case study participants explained they thought sharing was important, as they wanted to support education in New Zealand. They also wanted to encourage other schools to share.

Secondly the preparation process was active and revealed understandings and connections that were previously unnoticed. The leadership team took the time to pause and reflect on their curriculum, and construct a metaphor. The effect of this preparation was a greater clarity, understanding, and celebration of the steps taken and progress made, setting the scene for future action.

The process of telling the story was one of clarification. The act of telling and listening to others further clarified the story; and what the individual storytellers told revealed what they valued. Telling a story to an outsider (the NZC Online team) meant that in order to be articulated correctly and succinctly, practices had to be examined and understood. The effect was that in addition to further understanding their own positions, the teaching team had a better understanding of the vision, goals, and direction as told by the leadership team in their story, and the leadership team had a better understanding of the elements of practice that were required for the teaching team to be effective within the context of the school setting. Practices were broken down into their component parts leading to further clarification of beliefs and underpinning philosophies (Claudet, 2001, Cavallaro Johnson, 2009).

The participants identified the learning cycle inherent in the story telling process. By pausing and reflecting on the progress of curriculum implementation, then listening to the stories of the key stakeholders in the school, and then reflecting on the resulting story as a whole staff, plans were made for future development. An effect that the leadership team had not expected, however, was the value in having an expert outsider involved in the storytelling process. As the NZC Online team asked focused questions of the teaching team, the leaders could listen and observe. This, they reported, allowed them to understand the story much more than when they directed internal reflection processes.

In conclusion, digital stories have been found to be used by, and have an effect for, a wide range of New Zealand educators. In the words of one case study member, *“viewing these stories is a way of expanding our horizons, looking outwards, developing ideas, sharing. By challenging ourselves to view these stories it is obviously enriching our practices”*.

Implications for further research

Four ideas for further research have arisen from this project. Participants reported effects of the digital stories without elaboration. It would be interesting to examine in what ways and to what extent these effects are actually happening in schools and classrooms. Secondly, this research does not address who is not using the stories and why they are not being used. Thirdly, it was shown that educators view the stories through different lenses. What is the implication of the use of the stories in this way? What support would educators need to make the best use of the stories and to enable them to view stories through content, form and pedagogy lenses according to their needs (Fong and Woodruff, 2003)?

The case study school also raised a fourth point of interest for further exploration. The leadership team reported that by listening to the questions asked by the NZC Online team, and observing others telling their stories, they reflected on the types of questions they ask when investigating their own practices. In addition, as the interviewing team constructed the various voices into a coherent story with a specific focus, the story reflected back to the school provided a new perspective and further contributed to the curriculum change process. It would be interesting to

see the difference between a school undertaking their own digital story telling process and one being supported by a digital story making team.

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The Development of an Internal Quality Assurance System for Basic Education Schools with Application of the Four Noble Truths Principle



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Abstract

The paper aims to develop and to evaluate quality of an internal quality assurance system for basic education schools with application of the Four Noble Truths Principle.

The research process comprised two steps. Step One was the development of the system which was composed of three phases: Phase One was the study of the conditions and problems. Sources of data were the documents and 149 teachers. Phase Two was the development of the first draft of the internal assurance system which was verified by three senior Buddhist monks. Phase Three was the development of the system and its verification by three senior Buddhist monks and four experts on quality assurance. Step Two was the quality evaluation of the developed system by seven experts and 16 administrators. The employed research instruments comprised the questionnaires, the internal quality assurance system, a manual for system usage, the quality evaluation forms, and focus group discussion. Data were analyzed using the percentage, mean, standard deviation, and content analysis.

Findings were as follows: 1. The developed system was composed of nine components: (1) the creation of Sammādiṭṭhi; (2) the analysis of needs assessment (Dukkha); (3) the prioritization of problems; (4) the analysis of factors related to causes of the problems (Samudaya); (5) the analysis of factors that were causes of the problems; (6) the determination of standards (Nirodha); (7) the consideration of the connection between the quality assurances; (8) the determination of guidelines for solving problems; and (9) the practice for solving problems (Magga) and evaluation of the system with the Nāna 3 principle. 2. As for results of quality evaluation, the experts and administrators had opinions that the system had quality at the high level in accordance with evaluation standards in the aspects of feasibility, appropriateness, correctness, and usefulness.

The findings of this study indicate that the system can be implemented in the schools.

Keywords: Internal quality assurance, Four Noble Truths

Introduction

Education is extremely important to man. It can develop man to the highest level of his potential (Phra Dhammapidok (P. A. Payutto), 2003: 25-27). Human resource development by modern education system causes a variety of problems (Teera Roonjaroen, n.d.: 17), which is in agreement with the saying by Pravet Vasee (2007: 81) that man has the brain with high potential but education focuses on creating knowledge instead of wisdom. A study on educational competency of Thailand in comparison with those of other nations shows that the educational competency of Thailand ranks at the lowest level, while Thailand allocates the budget on education that is among the 1st – 4th ranks in the national budget. Thus, comparing to other countries, Thailand invests more on education but achieves a lower level of educational competency. Education is the factor that directly affects quality of the Thai people.

Quality develops from within (Sa-ngob Prasertpan, 2000: 36). Quality arises from working systematically, but Thai people work unsystematically (Woraphat Phujaroen, 2001: 21) which causes the decrease in educational quality. Quality of education will increase if we develop the evaluation system for quality development (Somkid Promjouy and Supak Piboon, 2001:41). Woraphat Phucharoen (2001: 7) said that the quality assurance system originated in the business and industrial sector; therefore, we should learn from that sector on application of the quality assurance system in educational administration. However, application of the system to educational administration is more difficult since the effects are inconspicuous and slower to appear. Also, Sa-ngob Prasertpan (2000: 81) said that quality development was a sensitive and delicate process of the society.

Buddhism has always been a foundation of the Thai society. The Four Noble Truths Principle is a systematic *Dhamma* principle at the core of Buddhism (Sumon Amornvivat, 2001:15) that should be studied and applied for educational development, especially for development of educational quality assurance system. Based on the above discussion, the researcher decided to apply the Four Noble Truths Principle in the internal quality assurance system for development of educational quality.

Research Objectives

1. To develop an internal quality assurance system for basic education schools with application of the Four Noble Truths Principle.
2. To evaluate quality of the developed internal quality assurance system for basic education schools with application of the Four Noble Truths Principle.

Research Methodology

This is a research and development study. The research process comprises two steps: the development step and the quality evaluation step. Details of each step are described as follows:

Step 1: Development of the Quality Assurance System. This step is composed of three phases of activities:

Phase One: Study of the quality assurance conditions and problems. This phase comprises two following activities:

1.1 Study theories and concepts of quality assurance and related research literature.

1.2 Study the operation of internal quality assurance work in three secondary schools. A questionnaire was used to collect data on the operation of internal quality assurance work from the sample of 149 teachers in the three schools. Data were analyzed using the percentage, mean, and standard deviation.

Phase Two: Development and preliminary verification of the first draft of the internal quality assurance system. This phase comprises two following activities:

2.1 Development of the first draft of the system. The researcher developed the first draft of the internal quality assurance system based on information obtained in Phase One. The first draft of the system is composed of eight components: (1) the creation of *Sammāditṭhi* toward quality assurance; (2) the analysis of needs and problems of the school; (3) the determination and prioritization of problems; (4) the analysis of causes of the problems; (5) the determination of achievement goals; (6) the determination of the success level of goal attainment; (7) the quality verification; and (8) the practice for solving problems based on *Magga 8* principle and verification of the system using *Ñāna 3* principle.

2.2 Preliminary verification of the first draft of the system by three senior Buddhist monks obtained by the chain selection method from the monks in the 16th. Saṅgha Region. The employed research instruments were an interview structure, and the first draft of the system. Data were analyzed by content analysis.

Phase Three: Development and verification of later drafts of the internal quality assurance system. This phase comprises three following activities:

3.1 Development of the second draft of the system. In this activity, the researcher developed the second draft of the system by revision and improvement of the first draft of the system based on the information derived from Activity 2.2. The developed second draft of the system is composed of 10 components: (1) the creation of *Sammāditṭhi* toward quality assurance; (2) identification of school problems; (3) identification of the school's main problems and their scopes; (4) identification of factors related to the problems; (5) analysis of causes of the problems; (6) analysis of factors related to causes of the problems; (7) specification of quality of the school; (8) determination of the system leading to quality school; (9) determination of the connecting systems that affect quality assurance; and (10) the practice for solving problems and verification of the practice using *Ñāna 3* Principle.

3.2 Quality verification of the second draft of the system by three experts on Buddhism, four experts on quality assurance, and 8 school administrators. The employed research instruments were an interview structure, the second draft of the system, and an appropriateness evaluation form. Data were analyzed using content analysis, mean, and standard deviation.

3.3 Revision and improvement of the second draft to create the final version of the system and development of a system operation manual. The final version of the system is composed of nine components. The system operation manual is composed of the following components: (1) the manual objectives; (2) the background and significance of the system; (3) the system objectives; (4) the Four Noble Truths Principle; (5) the *Ñāna 3* principle; (6) the quality assurance system; and (7) the system operation.

Step 2: Quality Evaluation of the Developed Quality Assurance System. In this step, quality of the developed quality assurance system and the system operation manual was evaluated by three experts on Buddhism, four experts on quality assurance, and 16 school administrators. The employed research instruments were (1) the developed final version of the quality assurance system; (2) the developed system operation manual; and (3) the quality evaluation forms for the system and the manual.

Data collecting activities in this step comprised the following: (1) contacting the experts and school administrators and asking for their helps and cooperation; (2) organizing a meeting involving the experts and school administrators to inform them of the evaluation objectives and activities; (3) experts and school administrators studied the system operation manual and the system quality evaluation forms, and then evaluated the quality of the developed internal quality assurance system and the system operation manual; and (4) organizing a focus group discussion session involving the experts and 16 school administrators to discuss on the evaluation results. Quantitative data were statistically analyzed using the mean and standard deviation; while qualitative data were analyzed using content analysis.

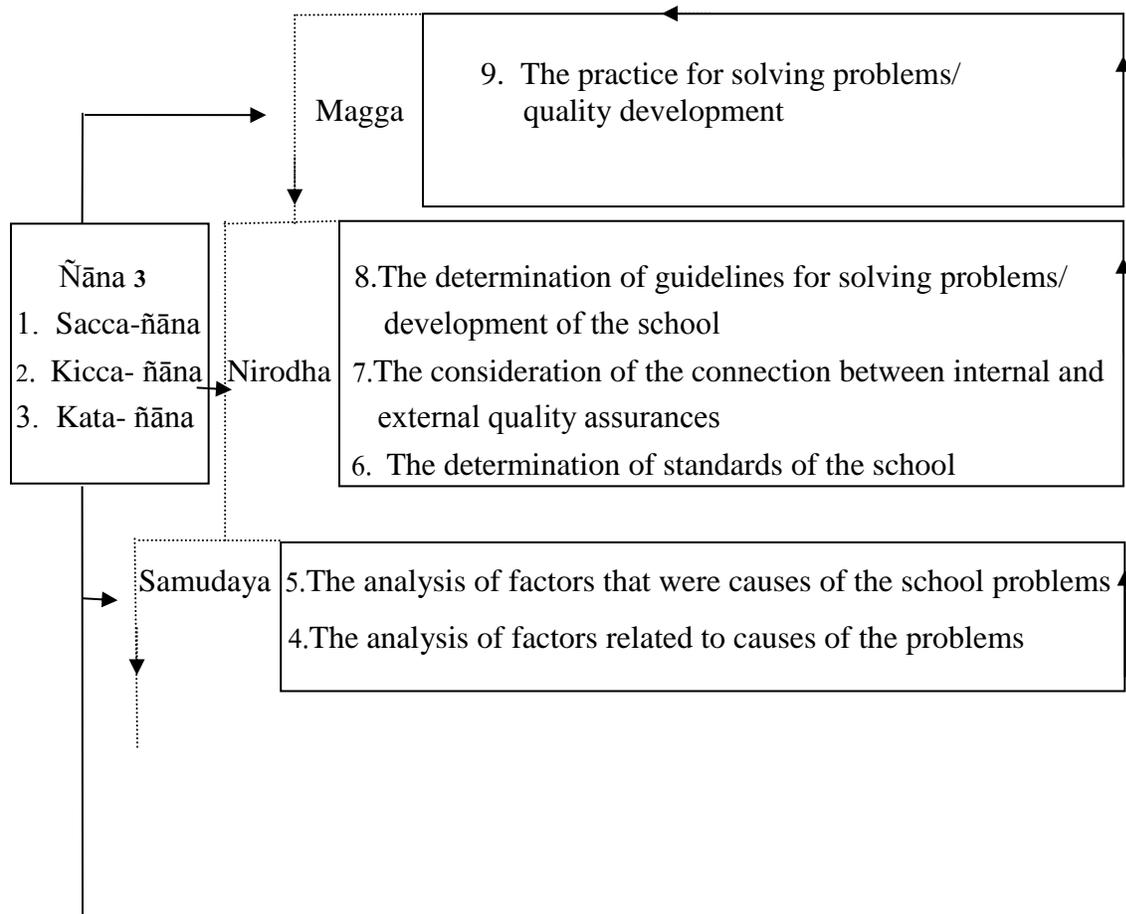
Conclusion of Research Findings

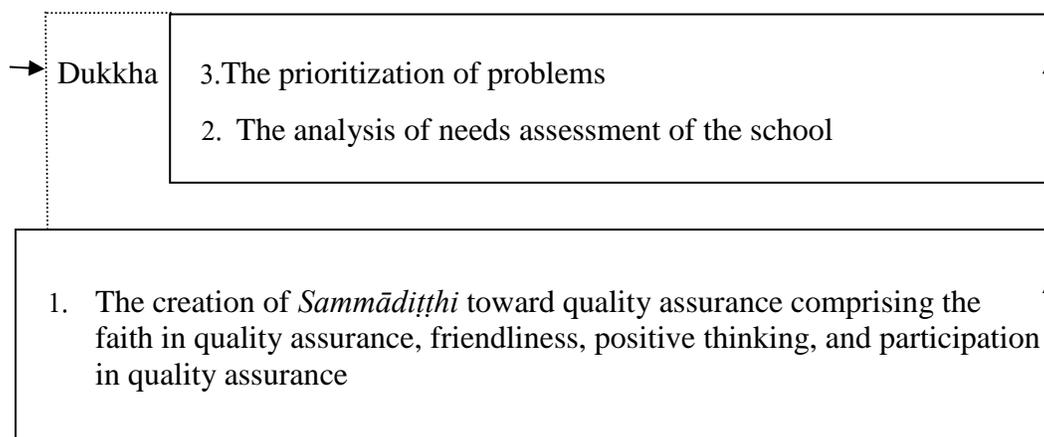
Research findings are presented in two parts with details as follows:

Part 1: Findings on Development of the Internal Quality Assurance System

The developed internal quality assurance system is composed of nine components as shown in Figure 1 below:

Figure 1: Components of the Internal Quality Assurance System for Basic Education Schools with Application of the Four Noble Truths Principle





The components of the developed internal quality assurance system as shown in Figure 1 can be explained as follows:

1. The creation of *Sammādiṭṭhi* toward quality assurance. *Sammādiṭṭhi* means right attitude. In this case, it means creation of the faith or confidence in the value of quality assurance that can be achieved by participation in the meetings to analyze and study the strong and weak points of quality assurance, friendliness or amicable feeling towards all people involving in quality assurance, positive thinking, and participation in quality assurance.

2. The analysis of needs assessment of the school. Needs assessment mean *Dukkha*, or suffering, in Buddhism. In this case, needs assessment, or *Dukkha*, of the school can be identified by conducting a needs assessment survey.

3. The prioritization of problems means the ranking of importance of the problems that have been identified from the need assessment survey. Problems with top priority must be solved first.

4. The analysis of factors related to causes of the problems means the study and analysis of causes and the prioritization of the importance of causes of problems of the school arising from internal and external factors.

5. The analysis of factors that were causes of the school problems means the analysis of causes of the school problems with the use of *Avijjā*, *Tanhā*, and *Upādāna* principles, which can be further explained as follows: (1) *Avijjā* means ignorance, in this case it means ignorance on the factors that are true causes of the school problems; (2) *Tanha* means craving or desire, in this case it means the cravings or desires to be, or not to be, which are not relevant to the context of the school; and (3) *Upādāna* means the attachment or clinging, in this case, it means the attachment or clinging to some practices that are perceived as being normal, even though those practices may not be sound or correct.

6. The determination of standards of the school, or determination of *Nirodha*. *Nirodha* means goals to be achieved. In this case, it means the determination of quality standards of the school according to criteria, which comprise (1) quality that arises from implementation of the school rules and regulations; (2) quality that arises from realization of importance; and (3) quality that arises from the normal way of work performance.

7. The consideration of the connection between internal and external quality assurances means the study to gain understanding on standards, indicators, criteria, and the analysis of recommendations to be considered for quality development.

8. The determination of guidelines for solving problems/development of the school means the preparation/improvement of school development plans with determination of the school philosophy, vision, mission, and goals, and formulation of the annual operation plan, works and projects.

9. The practice for solving problems/quality development. In this case, it means the practice for solving problems, or the practice for quality development, based on the *Magga 8* principle, which comprises the following activities: (1) the creation of awareness and realization of the importance of problem solving (*Sammādiṭṭhi*); (2) the practice of work/projects improvement and development (*Sammasankappa*); (3) the practice of effective and correct communications (*Sammāvācā*); (4) the correct and effective practice of assigned works (*Sammākammanta*); (5) the practice of work performance that are the normal functions of the school (*Sammā-ājīva*); (6) the practice of putting efforts on solving problems (*Sammāvāyāma*); (7) the practice of checking, monitoring and follow-up on work performance (*Sammāsati*); and (8) the determination and intention to improve, develop, and maintain quality (*Sammāsamādhi*).

In addition, *Ñāna 3*, which appears in the components in Figure 1, means insight or knowledge that is used for verifying and evaluating the system. It comprises (1) *Sacca-ñāna*, which means verification and evaluation of knowledge and understanding of the system; (2) *Kicca-ñāna*, which means verification and evaluation of the practice in the system; and (3) *Kata-ñāna*, which means verification and evaluation of the output of the system.

Part 2: Findings on Results of Quality Evaluation of the Developed Internal Quality Assurance System

Results of quality evaluation of the developed system and its operational manual are presented as follows:

2.1 Results of quality evaluation of the system operational manual by experts and school administrators indicate that the overall quality of the developed system operational manual is at the high level. When the rating means of individual evaluation items are considered, it is found that the item receiving the highest rating mean is that on the congruence of the manual contents with the manual objectives and the system objectives, followed by that on the manual being conducive for use as the guideline framework for internal quality assurance in school.

2.2 Results of quality evaluation of the internal quality assurance system based on four aspects of evaluation standards can be concluded as follows:

2.2.1 On the feasibility aspect, it is found that the system as a whole is highly feasible. When the rating means of individual feasibility items are considered, it is found that the item receiving the highest rating mean is that on the system being rational with the well connection among its input, process, and output, followed by that on the system being able to support and promote the participation of all people involved in quality assurance operation of the school, and that on the system being feasible for actual implementation, respectively.

2.2.2 On the appropriateness aspect, it is found that the system as a whole is highly appropriate. When the rating means of individual appropriateness items are considered, it is found that the item receiving the highest rating mean is that on the develop system being in accordance with the National Education Act, B.E. 2542, and the Ministry of Education's announcement on implementation of educational standards, followed by that on the system having systematic administration and management process, that on the system being in accordance with the school context, and that on the system being in accordance with the quality assurance system, respectively.

2.2.3 On the correctness aspect, it is found that the system as a whole is highly correct. When the rating means of individual correctness items are considered, it is found that the item receiving the highest rating mean is that on the system enabling self-evaluation results to achieve credibility, followed by that on the system having determined the verification/evaluation objectives together with the description of the objectives and process of verification/evaluation, and that on the system having developed quality evaluation instruments that can collect correct evaluation information, respectively.

2.2.4 On the usefulness aspect, it is found that the system as a whole is highly useful. When the rating means of individual usefulness items are considered, it is found that the item receiving the highest rating mean is that on the system being able to promote *Sammādiṭṭhi*/good attitude toward quality assurance, followed by that on the system promoting actual work performance in school, that on the system providing clear guidelines for utilization of evaluation results, and that on the system enabling the generation of information for promotion of school development, respectively.

Discussion

From the above-mentioned research findings, there are important issues for discussion as follows:

1. On the finding that the developed internal quality assurance system for basic education schools with application of the Four Noble Truths Principle is composed of nine components, this finding confirms the assertion by Sallis and Hingley (Sallis and Hingley, referred to by Doherty, 1994: 12) that the school can develop its own quality assurance system. The application of the Four Noble Truths Principle in development of the system is in accordance with the saying by Phra Dhammapidok (P.A. Payutto) (2003: 893 – 895) that the Lord Buddha had emphasized on having the monks to teach people to understand the Four Noble Truths Principle and to solve their problems by themselves. This finding demonstrates that the Four Noble Truths Principle can be applied in daily life. Also, the six senior monks who served as experts for this study agreed with the application of the Four Noble Truths Principle and approved of the developed quality assurance system.

2. On the findings regarding quality evaluation of the developed quality assurance system together with its system operation manual as evaluated by experts and school administrators that reveal the following results:

- 2.1 The quality of the system operational manual is evaluated to be at the high level; this is probably because the manual was developed according to the steps of system development

as specified by Supak Piboon (2007), and was subsequently improved based upon recommendations by the experts.

2.2 The feasibility aspect quality of the developed quality assurance system is evaluated to be at the high level; this is probably because the developed system is rational with well connection among its input, process, and output. Also, its development is based on the assertion by Sumon Amornvivat (2001) that the Four Noble Truths Principle is a systematic principle composing of the input, process, and empirical output, which is in line with the system components as mentioned by Chaiyong Bramawong (2010). Furthermore, the main factor that contributes to the success of system implementation is that the system encourages participation by all stakeholders, which is in line with the assertion by Chonchakorn Worin (2006) that participation enables people to learn together and accept each other resulting in achievement of objectives. All of these points, of course, indicate that the system is feasible for implementation.

2.3 The appropriateness aspect quality of the developed quality assurance system is evaluated to be at the high level; this is probably because the system was developed in accordance with the National Education Act, B.E. 2542, and in accordance with the quality assurance system. It was also developed based on the concept and principle of educational quality assurance as proposed by Suvimon Wongvanit and Nongram Setpanit (2001) that it should comprise control, monitoring, and evaluation. Evidently, from the analysis of the quality assurance system against the Four Noble Truths Principle, it is found that quality control is in line with *Sacca-ñāna*, quality monitoring is in line with *Kicca-ñāna*, and quality evaluation is in line with *Kata-ñāna*.

2.4 The correctness aspect quality of the developed quality assurance system is evaluated to be at the high level; this is probably because the system was developed with clear objectives for monitoring and evaluation, and with valid and reliable data collecting instruments and data collection process resulting in the collected data being valid for efficient data analysis. The system development is in line with the assertion by Sirichai Kanjanavasri (2002) and Somwung Pitinyanywat (2006) that correctness means that there is an evaluation that is correct and sound, with the use of appropriate technic and with sufficient information. The information will serve as indicators of the system. It is the symbol/media of communications. Therefore, information is a component in *Magga 8* principle, i.e. *Sammāvācā*.

2.5 The usefulness aspect quality of the developed quality assurance system is evaluated to be at the high level; this is probably because the system can enhance *Sammādiṭṭhi*, or good attitudes toward quality assurance. Quality assurance will be useful if it can enhance quality of the school. Quality will occur when the school personnel have good attitudes (Arcaro, 1995), and quality means perfection which has similar meaning to goodness, truthfulness, and having standard. Also, quality must include the following: (1) responsibility, (2) efficiency, and (3) effectiveness (Sallis, 2002). The system that has components that include responsibility, efficiency, and effectiveness will enhance quality of the learners.

Recommendations

1. Since the developed internal quality assurance system is found to have appropriate components and to cover the context of evaluation and quality assurance, it should be implemented in school. However, in implementation of the system, the school personnel must

be equipped with *Sammāditṭhi*, and there should be supervision, monitoring, and follow-up activities on a continuous basis.

2. The developed system should be implemented in schools that have been assessed as having different quality levels to find out whether or not it affects quality development of those schools differently.

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Teacher Understanding of Standards

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Abstract

This study compared teacher understanding of standards in Ontario, Canada and Portugal examining Ontario's domains (i.e., commitment to students and student learning; professional knowledge; teaching practice; leadership and community; and ongoing professional learning) and Portugal's dimensions (i.e., professional, social and ethical dimension; development of teaching and learning; participation at school and relationship with the educational community; training and professional development in a lifelong perspective). Using a 5-choice likert scale and 2 open ended questions, teachers were asked to respond to their understanding of and application of dimensions or domains. Preliminary findings show that teachers have some knowledge of and understanding of standards and some teachers know how the standards are being used. There is some agreement on how standards should be used or not used and how standards should be developed. Further study is required to determine the extent that these results hold true for each jurisdiction.

Key words: standards, teacher understanding

Family Involvement in Higher Education in Oman: Faculty Perceptions

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Abstract

Family involvement in children's education is an important factor for students' success. Studies conducted among specific grades and subject areas support the argument that parental involvement can influence students' academic achievement regardless of the student's age or subject. These studies have confirmed that parental involvement has reached a higher level of recognition today as a key factor in improving schools. The present study examines the perceptions of faculty members regarding parents' role in Omani higher education institutions. Two issues are considered: the perceptions of faculty members regarding the role of the family in higher education, and the differences that exist in their perceptions of that role according to gender, nationality, place of graduation, specialization and academic rank. Participants included 175 faculty members (152 males and 23 females) from government and private higher educational institutions. Data was collected using a questionnaire which consisted of 40 statements divided into four categories: role understanding and appreciation, children's rights, parents' rights, and co-operation. Descriptive statistics, Independent t-test and One Way ANOVA were used to analyze the data. Overall findings indicated the importance of parents' role in higher education and specifically as it relates to their financial and moral support, academic and professional guidance and in playing an advisory role when choosing college and specialization. No significant differences were found in all variables except in faculty members nationality, Omani and non-Omani faculty perceived parents' roles differently in two categories. Omani faculty considered children's and parents rights to be less important compared to non-Omani.

Key words: parental involvement; higher education; family role; faculty members' perceptions, Oman

Measuring against Expectations: What Higher Education faculty Want vs. the Reality of Student Characteristics²¹

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Abstract

In response to faculty dissatisfaction with the skills possessed by in-coming students, this study is being conducted (3-year HM Strategic Grant project) to ascertain the readiness of Omani secondary graduates for higher education. As the case-study sample the study tested all Sultan Qaboos University intake of 2011-12 (n=6191) and a sample of all faculty teaching first year students, the researchers conducted descriptive and correlational analyses of the collected data that include: diploma grades, test scores, and GPA, plus foundation scores, critical thinking scores (CCTST), motivation scales (MSLQ), self-reported university readiness characteristics and faculty survey. The research questions are:

- 1. What are the characteristics, knowledge, and skills of students entering SQU? What are the characteristics, knowledge, and skills of students entering SQU?*
- 2. What personal, motivational, cognitive, and academic factors significantly contribute to the variance in students' foundation test scores and to the variance in their cumulative SQU-GPA?*
- 3. How are faculty expectations of university readiness aligned with student performance?*

The analysis compares the faculty data about student readiness to data from 5 tests given to students during orientation. Further, the analysis is used to create a complex profile of the students' characteristics which includes some disturbing results. Both the foundation and critical thinking scores (deductive and inductive reasoning, evaluation, inference, analysis, explanation, and problem solving as measured by the CCTST) are below expectations.

This study's results inform policy discussions about the alignment of grades 1-12 curriculum and expected learning outcomes, with the entrance requirements and program design for higher education.

Audience Higher education faculty and administrators and Pre-K curriculum evaluators

²¹ Members of the research team include: Drs. Thuwayba Al Barwani, Humaira Al Suleimani, Otherine Neisler, David Clayton, Hamed AlYahmadi, Hussain Al Kharusi, Muna Al Kalbani, Mohammad Athar Khan

Supporting Teachers to Improve Quality of Teaching: Analysis of Post Lesson Teacher Reflection

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Abstract

Lesson study has attracted the interests not only in developed countries, but also in developing countries as a promising model of continuing professional development of teachers. The main elements of lesson study are:

- *Collaborative design of lessons or units of study*
- *Execution of the design with observation*
- *Reflection on the product with a view to its improvement*

In this paper, we focus specifically on the nature and effectiveness of the post-lesson reflection phase. Four science transcripts (South Africa, Indonesia, Kenya, Japan) were used to identify the topics and levels of teacher reflection. The analysis of the transcripts followed a procedure similar to Ward and McCotter (2004). Teacher comments were first segmented by unit of meaning and segments were sorted into groups representing specific topics. The second step was to examine all the reflective statements on a specific topic to identify levels, and to project possible future levels that might be attained. The analysis yielded a rubric of five categories of topics with 3 to 4 reflective levels.

Applying the rubric to the four transcripts, it was found out that comments by non-Japanese teachers focused on pedagogical and logistical aspects of lessons and less statements contained action-oriented reflections. Power dynamics was apparent in one case. The results suggest the need to provide a framework or protocol of post lesson discussion and the important roles played by facilitator and/or knowledgeable others in reflection session.

Key words: lesson study, continuing teacher professional development, quality of teaching

Development of the Knowledge and Experience Evaluation System in Transferred Education for Technical Diploma Curriculum of College under the Vocational Education Commission



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Abstract

The objectives of this research were to establish a system for evaluating the learning experience transfer to Technical Curriculum Diploma of Vocational Education Commission.

The sample used in this study are: (1) professionals who have experience in transfer learning, and school administrators in the Office of Vocational Education Commission and the Executive Office of the Vocational Education and Profession 17 people, (2) personnel in institutions under the jurisdiction of the Office of Vocational students in Nakhonratchasima province, including the Diploma year 1 computer with 30 , school administrators and department heads of five people, head of Curriculum and Instruction, chief Registrar and the measurement and evaluation of four teachers and professional experts for 5 peoples. The research tools included a knowledge and experience evaluation system in transferred education, a questionnaire and interviewing form. The statistics that used in data analyzed were median, mode and interquartile range.

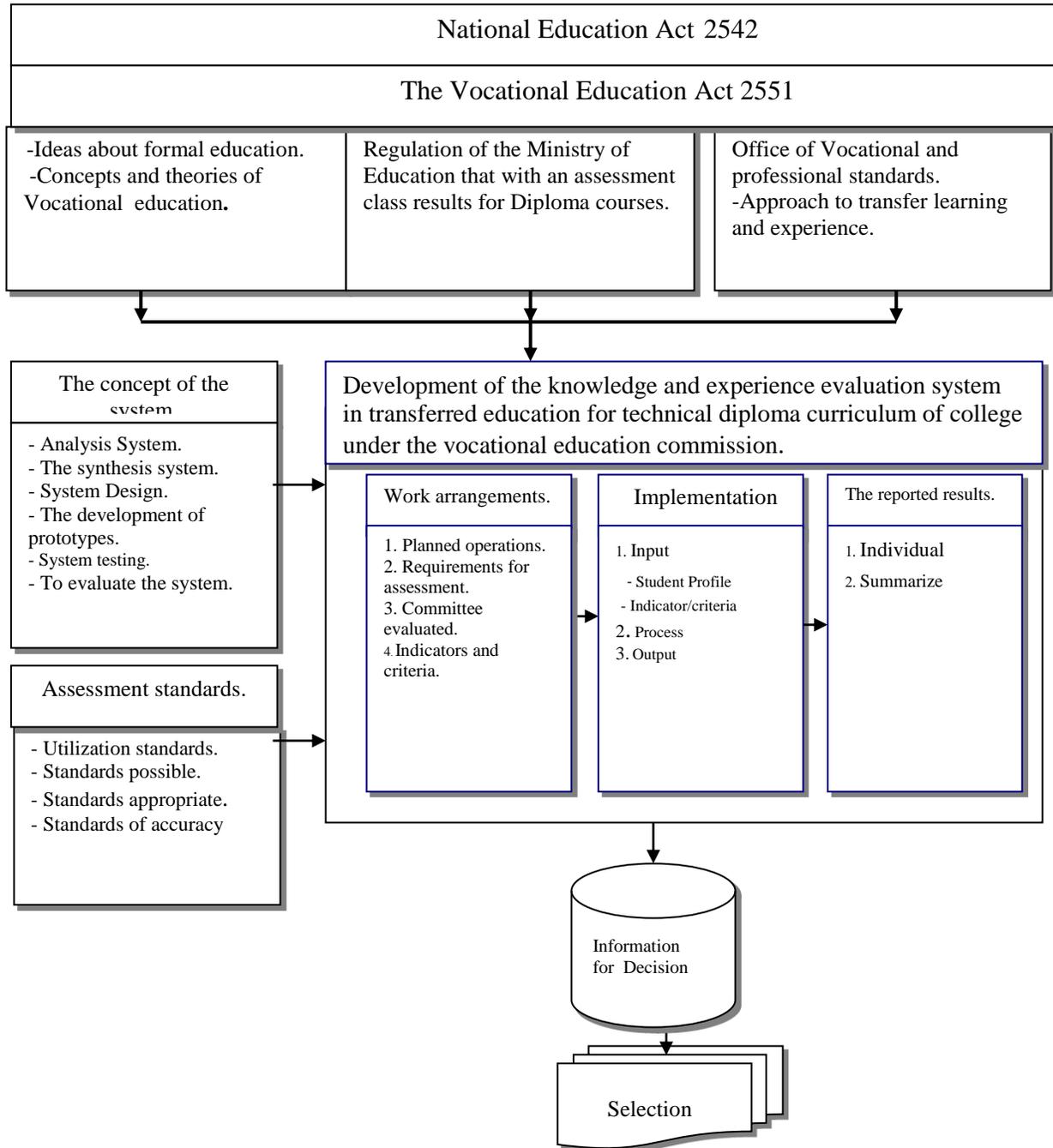
The results of the research was the knowledge and experience evaluation system in transferred education for Technical Diploma Curriculum of college under the Vocational Education Commission composted of four components: (1) the preparation, (2) the execution, (3) report and (4) is used for evaluation and improvement work.

Keywords: knowledge and experience evaluation system, transferred education

The purpose of the research

1. To create an evaluation system to transfer learning from experience in Diploma curriculum for the Office of the Vocational Education Commission.
2. To check quality of Evaluation system to transfer learning from experience which developed.

Framework for research



PICTURE 1.1 Framework for development of the knowledge and experience evaluation system in transferred education for technical diploma curriculum of college under the vocational education commission.

Method

An evaluation system to transfer learning from experience of Diploma courses of Education Office of Vocational Education Commission. The R & D (Research and development) for the sub-elements and how each component of the system. The synthesis of the research is the

transfer of knowledge to the Office of Vocational and professional standards. The evaluation system for decision making in the process to study. Theory associated with formal education. Which consists of six steps: (1) System analysis (2) Synthesis system, (3) Design system (4) Prototype development (5) Testing system and (6) Using system.

Step 1 The system analysis as follows.

1. Educational theory, research, and other documents related to the evaluation of education and transfer results. To capture the development assessment system. Development of evaluation criteria. The evaluation system according to the 10 questions of the New Kosovo (Nevo, 1983: 117-183 cited in Somkid Promjui 2535: 92) concept evaluation to decide on the management and planning of coastal deadlines beam. Stufflebeam's techniques were used to develop the assessment and analysis of a Delphi technique to determine validity according to the criteria used in the evaluation of the learning experience to transfer (Somkid Promjui 2535. : 92).

2. An expert who have knowledge and experience in the assessment. The transfer of knowledge and professional experience in formal education. To gather ideas on assessment for transfer learning from experience.

Step 2 Synthesis systems as follows.

The results of content analysis. The results of the expert interviews in phase 1, the synthesis and evaluation of a system to transfer learning from experience. To the elements in which each element is associated. The results of the synthesis of the corresponding sub-elements.

Step 3 Design system as follows.

1. The draft evaluation system to transfer learning from experience. Experts consider the appropriateness and feasibility of data collection using the Delphi technique. The validity of the compliance criteria are developed.

2. Groups: a group of executives in the Office of Vocational Education Commission. The group has experience in transfer learning.

Step 4 Prototype development as follows.

1. The system from Step 3 to develop a prototype system to evaluate the transfer of learning from experience.

2. Prototype of evaluation system to transfer learning from experience. Developed by the database management system MySQL, and PHP applications which can run under the operating system Windows 7.

3. Documentation of the evaluation system used to transfer learning from experience.

Step 5 Testing system as follows.

1. The system.

1.1. The research was to evaluate the transfer of learning from experience. To experiment with personnel in the Office of Vocational Education Commission, including five of colleges as follow as NakhonRatchasima Vocational College, Nakhonratchasima Technical College, NakhonRatchasima College of Business Administration and Tourism, Pak Chong Technical Colleges and Nakhonratchasima Polytechnic College.

1.2 The evaluation system used to transfer learning from experience. The Diploma of Vocational Education Office of Vocational Education Commission. The results can be used to develop and improve the knowledge and experience for the duration of the experiment. In the first semester was a period of getting students into the college. The performance evaluation before and after the assessment when you go to trial. Information can lead to improved evaluation system to transfer learning from the experience of college. The data were collected by means of interviews. And for those involved, including the management and staff of the various operators. To check the validity of satisfaction possible and useful as well as suggestions on how to use the system. The data was analyzed by content analysis, frequency, percentage, mean and standard deviation.

2. Evaluation.

2.1 Documents. The evaluation system used to transfer learning from experience. NakhonRatchasima Vocational College for a sample and relevant to the study which understanding the process of knowledge and experience. The operational guidelines for the implementation of the trial in each side.

2.2 The gathered information by the query.

Step 6 Using system as follows.

Scope of Research

In this research for study and to determine the scope of the study are as follows.

1. Groups to research information developed evaluation systems to transfer learning from experience that the Diploma of Vocational Education Office of Vocational Education Commission.

The first group of experts in the process of collecting data for the evaluation of the system to transfer learning from experience by means of interviews.

The second group of experts to examine the validity of using the Delphi technique include the school administrators. Executive Office of Vocational and professional standards, who has experience in transfer learning. And experienced workers transfer knowledge and experience.

The third group of experts to consider the appropriateness of the evaluation system to learn from experience to include the researcher transfer of knowledge transfer which experts in the assessment system.

Group of school administrators as follow as Department heads, Registration for the Curriculum and Instruction. Measurement and evaluation of teacher professional career. Students from Nakhonratchasima Vocational College that for experimental data in the system.

2. System evaluation to transfer learning from experience. Developed in this study. Developed for use in estimating the transfer of learning from experience. Diploma courses of education in the Office of Vocational Education Commission.

3. Criteria used in the evaluation of the system to transfer learning from experience. Not consider the quality of the assessment criteria and standards regarding the use include four aspects that standards possible. Appropriate standards and standards of accuracy.

3.1. The evaluation of a system to transfer learning from experience for information must be provided to meet the needs of those involved and was instrumental in the development of the knowledge and experience to the actual transfer.

3.2 Standards possible. The evaluation of a system to transfer learning from experience can be assessed in line with reality and appropriate to the situation and can be put into action.

3.3 The appropriate standard. The evaluation of a system to transfer learning from experience implemented properly and the ethics of assessment.

3.4 Accuracy Standards. The evaluation of a system to transfer learning from experience which accurate and providing reliable and sufficient information to judge the value of something.

Result

The result to develop of evaluation system to transfer learning from experience in Diploma Curriculum for the Office of the Vocational Education Commission are as follow.

Firstly, the result of design system consists of four elements.

The first element of arrangement include 1) Implementation plan has involved six agencies: (1) Planning is responsible for the evaluation of the proposal to transfer learning from experience. The plan work practices guidelines reflect monitoring and project. (2) The teacher advisor responds to consult students, training, seminars on evaluation of learning from experience in the vocational college to students. (3) Information department is responsible for the news release and duration of release. A guide for the evaluation and documentation of learning from experience to transfer and coordination with local communities and enterprises. (4) The registration authority for evaluation have a defined form and obtain a database for evaluation. (5) Evaluation of learning from experience is responsible for setting the criteria used in the evaluation. Evidence to support the evaluation of the portfolio of the applicant evaluation. (6) The contact of the results and check the previous track then monitor and report on work to improve the evaluation and learning from experience. 2) Qualifications of the applicant evaluation to student's education who have work experience of not less than one year of high school graduation or diploma or equivalent. 3) Properties of the evaluation committees to transfer learning from experience must have experience as teachers or teaching courses for evaluation and having experience working as a teacher for at least 3 years of knowledge and understanding about the course performance. 4) Define indicators and criteria. The indicators and criteria for planning, teacher advisors, information department, the registration, evaluation of learning from experience, tracking and monitoring. Eligibility criteria for application evaluation and criteria for the evaluation of the committees to transfer learning from experience.

Figure 1. Indicator and criteria for planning

Indicator and criteria	Propriety				Feasibility			
	delphi round 1	delphi round 2	IP	IC	delphi round 1	delphi round 2	IF	IC
Input section								
1. Offer project evaluation to transfer learning from the experience.	100	100	100	1.00	100	100	100	1.00
2. Committee operations.	100	100	100	1.00	100	100	100	1.00
3. Clarify the roles and responsibilities of the board.	100	94.1	97.05	1.06	100	100	100	1.00
Process section								
4. Common practices reflect the project monitoring and regulation by the role of education regarding the evaluation course Diploma (Diploma) BE 2546.	88.2	88.2	88.2	1.00	94.1	94.1	94.1	1.00

Indicator and criteria	Propriety				Feasibility			
	delphi round 1	delphi round 2	IP	IC	delphi round 1	delphi round 2	IF	IC
5. Common set of tools used to observe and monitor and reflect on the project.	88.2	88.2	88.2	1.00	82.4	88.2	85.3	0.94
6. Provide facilities for the operation as necessary.	94.1	100	97.05	0.94	88.2	94.1	91.15	0.94
7. Consider joint action plan.	100	100	100	1.00	88.2	100	94.1	0.88
Output section								
8. The purpose of the project can follow.	100	100	100	1.00	82.4	94.1	88.25	0.88
9. Have considered the limitations of various ongoing projects.	94.1	100	97.05	0.94	64.7	82.4	73.55	0.82
10. Projects can lead to a practical reality.	100	100	100	1.00	100	100	100	1.00
11. Are monitored and evaluated continuously.	100	100	100	1.00	88.2	94.1	91.15	0.94
12. A progress report to the concerned groups.	94.1	100	97.05	0.94	82.4	94.1	88.25	0.94

IP = Index of propriety $IP = (IP1 + IP2)/2$
 IF = Index of feasibility $IF = (IF1 + IF2)/2$
 IC = Index of Congruence

$IC (\text{propriety}) = 1 + (IP1 - IP2)/100$
 $IC (\text{feasibility}) = 1 + (IF1 - IF2)/100$

Criteria : IF and IP ≥ 80
IC ≥ 0.80

The second element of implementation is the act of obtaining a preliminary assessment of portfolio, interview for the assessment of the evidence of the applicant the initial assessment so that knowledge and experience to report the result of the evaluation.

The third element of report result consists of work individually and report the evaluation results of the evaluation report summary.

The fourth element of improve is the assessment results to improve performance, the data collection, analysis and reporting.

Secondly, the result of prototype development used by MySQL, PHP is shown that picture below.



Conclusion

In conclusion, the results of this study provide six steps; system analysis, synthesis system, design system, development phototype, testing system and using system. After system is designed ,they are four elements of system; (1) element of arrangement; (2) element of implementation; (3) element of report result and (4) element of improve system. Evaluation is still in the process of implementation.

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Technological Mediation and Teachers' Identity in Brazil



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Abstract

This paper explores recent transformations in teachers' professional identity that are linked to the introduction of information and communication technologies (ICT) in Brazilian schools. It analyses, more specifically, the case of Duque de Caxias, a municipality with 134 schools and 55 thousand students in the State of Rio de Janeiro, where more than 80 teachers have become "mediators of technology". These teachers are now in charge of connecting regular teachers and students with new technological resources, enhancing the curriculum. They work in a laboratory equipped with computers and software designed for educational purposes. There are expected to assist teachers on planning and delivering lessons with technologies, providing academic and technical support. Their role raises relevant questions about the nature of teachers' identities and their work in primary schools. It also leads us to question current models and policies for implementing computer related technology in the curriculum. The theoretical framework is based on the theory of mediation proposed by Jesus Martín-Barbero and Orozco Gómez. The methodology is qualitative, conceived as a critical discourse analysis. Findings reveal how political programs have impacted the lives of teachers, changing the culture of schools and the place of technologies in the school curriculum.

Keywords: Teachers, Professional identity, Technology, Brazil

Introduction

This paper explores recent transformations in teachers' professional identity that are linked to the introduction of information and communication technologies (ICT) in Brazilian schools. It analyses, more specifically, the case of Duque de Caxias, a municipality with 134 schools and 55 thousand students in the State of Rio de Janeiro, where 101 teachers have become “mediators of technology”. Duque de Caxias (Figure 1) is a city located at Baixada Fluminense, in the state of Rio de Janeiro (Figure 2), which is part of the Southeast region of Brazil (Figure 3).

Figure 1. Map of Duque de Caxias.



Figure 2. Map of the State of Rio de Janeiro.



Figure 3. Political Map of Brazil highlighting the State of Rio de Janeiro.



In an attempt to reverse poor school performance, in the last ten years the city implemented public policies to improve the quality of teaching. One of the actions was the creation of a Coordination for Technology Applied to Education, which introduced the role of “mediators of technology”, which began to function in 2001. According to the City Letter n. 3/2013: “the mediator of technology must foster and promote the use of technology in their school unit through training teachers in study groups and/or other forms of school organization, innovating and encouraging positive changes in teaching practice. He or she must become the connection that will enable teachers and schools to achieve the goals set with diverse technologies, in order to promote the construction of a meaningful learning environment”.

During the 1990s there was also a widespread reform of the Brazilian educational system, following, firstly, the new Constitution (1988) and later the National Education Guidelines and Framework Law - the LDB (Law 9394/96). After the Law was passed, school education was divided into two levels: basic education (comprising early childhood, primary and secondary education) and higher education. The LDB also established a common curricular basis for primary and secondary education with diversified parts to account for regional and cultural differences. The number and the length of school days were increased, as well as the scope of assessment to include the educational system itself, evaluated at primary, secondary and higher levels.

Regarding the learning process, the LDB introduced the possibility of continuous and partial progression, and cycles as an alternative for grades. It also implemented the process of classification and reclassification, which is supposed to allow learners to go forward with their studies according to their level of achievement and evidence of learning. For students whose achievement is unsatisfactory, the Law offers the possibility of remedial classes in parallel to the school year, and for students who are falling behind, the option to accelerate their study. These mechanisms are intended to expand students' possibilities to succeed in school, replacing practices like grade repetition.

Reformulations in the law and the creation of new roles for teachers lead us to analyze the ways in which technologies are transforming teachers' professional identities. Looking at the case of Duque de Caxias, it is possible to see how "mediators of technology" are now in charged of connecting regular teachers and students with new technological resources, enhancing the curriculum. They work in a laboratory equipped with computers and software designed for educational purposes. They are also expected to assist teachers on planning and delivering lessons with technologies, providing academic and technical support. Their role raises relevant questions about the nature of teachers' identities and their work in primary schools. It also leads us to question current models and policies for implementing computer related technology in the curriculum.

Theoretical framework

The theoretical framework of this research is based on the concepts of mediation (Barbero, 2001; Gomez, 2006), technology (Lévy, 1999, Castells, 1999), identity (Bauman, 2005, Hall, 2006; Canclini, 2008) and teachers training (Tardif, 2002; Perrenoud, 1999).

Barbero (2001) believes that the advent of technology establishes a new relationship between the modes of production and the ways we communicate. Barbero (2001) argues that our cultural identity is marked by the participation of individuals in networks, as well as their mobility and sense of immediacy. In the same line, Orozco Gomez (2006) studied the relationship between technology and communication, exploring the nature of mediation. Adopting a culturalist perspective, the author understands that communication mediates the production of knowledge.

Regarding the concept of technology, the studies of Levy (1999) and Castells (1999) enlightened our understanding of cyberspace, virtual language and mediatization. Levy (1999) examines the notion of "cyberspace" as a mediator of "collective intelligences" and suggests that today's education needs to be linked to this new dimension of knowledge construction. With the "emergence" of cyberspace and democratization of access to information, new learning models are linked to the idea of collective intelligence, being seen as possible ways to reform education.

Another scholar to study the influence of technology in society was Manuel Castells (1999). This author provides a definition of "information society" and its impact on contemporary lifestyles. According to the author, the information society and network society are based on the power exercised by information. Such power promotes constant change. "The generation, processing and transmission of information becomes the main source of productivity and power" (Castells, 1999, p.21). Access to information and networking favors control and the maintenance of privileged positions.

Another concept that informs the theoretical framework of this research relates to teachers training. Tardif (2002) and Perrenoud (1999) contribute to the understanding of teaching practices and their relationship to the knowledge produced before and during teachers' initial and continued training, as well as during teachers' practice. Such studies inform how teachers' knowledge is produced and its power to transform social relations within and outside schools.

Maseto, Moran and Behrens (2000) analyzed the relationship between new technologies and pedagogical mediation in schools. They explore the concept of mediation and the influence of information technology and communications in learning.

A vision of identity considering the social, political and cultural world of individuals is observed in the work of Stuart Hall (2006). This author states that society is transforming and generating a "cultural identity" featured in the postmodern turn. Thus, man as a social being would have forged their identity and guided by several concepts such as alterity, belonging and deconstruction, becoming free. According to Bauman (2005, p. 90) the freedom to change any aspect of individual identity and appearance is something that most people today consider readily accessible, or at least see it as a realistic prospect for the future.

Methodology

The methodology of this study is qualitative, being conceived as a critical discourse analysis. The research question is: how do teachers who work as "mediators of technology" perceive their role at school? Data was collected through interviews with "mediators of technology" and teachers, as well as the analysis of official documents issued by the municipality of Duque de Caxias. We adopted a critical discourse analysis because of its power to locate particular discursive practices within social, cultural and historical contexts, unveiling power asymmetries and inequalities. It provides the researcher a critical standpoint, showing how language is not passive or static. The research is still under way and will be complete by the end of 2013.

Results and discussion

In this paper our results are presented through three vignettes describing different situations. The first relates to teachers inexperience with technology and the reliance on the "mediator of technology". It shows how this relationship impacts the school curriculum and changes professional positions. The second vignette approaches the meanings attached to the place called "computer room" and the third reveals the role of "mediators of technology" in the promotion of learning experiences for teachers and students.

Situation 1

As soon as I entered the laboratory, to my amazement, the operational system was another. It was Linux and not Windows, which I use at home. I turned off the computer and waited to get a mediator. (Marina, reading room).

This quote is from a teacher who currently works at the school's reading room. It describes her surprise with the operational system installed in her school's computers. This teacher, as well as other teachers, found it difficult to work with Linux. The majority of them never had formal instruction to use this operational system. Some teachers also had a certain aversion to unknown

technology, feeling like “immigrants” in a digital world. They often expressed frustration and unwillingness to implement activities with technological resources in their classes. During the research we found out that “mediators of technology” were seen as solution providers for teachers personal and educational needs. They relied on mediators for the planning and delivery of lessons. However, in many cases, mediators ended up teaching for their colleagues in the computer room. This had implications for teachers’ engagement with their own work and professional development, as they became accommodated knowing that a colleague would act as a mediator of technology, becoming responsible to deliver lessons with the assistance of ICT whenever they were unable to perform their job.

Situation 2

Thankfully it is not allowed to use the phone in the school. Here in the computer room it is not used, isn't it? (Viviane, primary school teacher)

The mobile phone is a communication device that has benefited from technological innovations. Today, most people own a mobile phone and this extends to students. In the State of Rio de Janeiro there is a law prohibiting the use of cell phones in classrooms. However, as we can see on the above quote, Viviane, the teacher, perceives the computer room as a unique place in school where mobile phones could be allowed. In her view, the lab would be a place in which teaching could happen with the assistance of diverse technologies, even mobile phones. This quote reveals the municipality lack of preparation to take advantage of the pedagogical potential of mobile devices, as well as the limitation of public police and programs for the implementation of such technologies in the curriculum. Furthermore, it shows how mediators of technology are the owners of privileged information within schools, acquiring a professional identity that differs from the identity of other teachers.

Situation 3

Last week, during the lesson about feudalism, students made good progress when they realized, using the internet, the relationship between suzerainty and vassalage. (Daniele, history teacher)

In the above quote the history teacher, Daniele, acknowledges how students’ learning progressed as a result of interaction with Internet resources. This quote shows how Daniele was able to integrate lessons delivered in the classroom with lessons planned for the computer room. Here, the mediator of technology was not the sole responsible for the lesson, but someone who partnered with teachers to facilitate her work. Importantly, the teacher was satisfied with the results of her class and was able to conduct the lesson in both spaces. When compared to the first quote, Daniele’s case made us think: should all teachers be able to efficiently use internet resources? Should all teachers integrate technology in the curriculum? Should all teachers use technology to improve learning? Should all teachers gradually learn about technologies, becoming independent users? These questions are complex and lead us to critique educational values and principles underlining public policies for technology in education. Such policies create new demands for teachers and schools, which are justified on the basis of international and economical demands, not always in tune with the needs and knowledge of local communities. Some policies define unrealistic goals and create, within schools, exclusive spaces and professional roles, as we could see in this study.

Technologies, for the majority of schools in Duque de Caxias, are restricted to a computer room. Knowledge about such technologies is under the possession of a few people, those who supposedly hold the key to innovation. Mediators of technology, being regular teachers who assumed this role, undergo a significant change in professional identity, assuming a new power position. While such position may motivate other teachers to become active users of technologies, adopting new resources and approaches for their classes, it highlights problems on teachers' initial and continued education, as well as limitations in the conception and funding of educational technology.

Final considerations

Although this study is still under way, the ongoing process of teachers identity work experienced may be considered a 'reflexive' phenomenon because their self-identities are transformed in the continuity of time and space through reflexivity. Biographies are 'means through which individual identities and life-histories are constructed out of collective experiences'. In other words, they are 'cutting paths in and through the determined spaces of the structures and cultures in which individuals are located' (Clarke et al., 1975, p. 57). It is as a result of power struggles that teachers make life choices and engage in different professional roles. This leads to 'self-actualization', as they constantly search for balance between opportunity and risk, making decisions that determine their future and shape self-identity. According to Giddens (1991) 'in the post-traditional order of modernity, and against the backdrop of new forms of mediated experience, self-identity becomes a reflexively organized endeavour' which is constituted through narratives of self (p. 5). One of the consequences resulting from multiple identities is the "fragmentation of the presentation of the self". Teachers' commitment to collective identity in certain ways suffocates their individual identities and needs in favor of political agendas.

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Sub-theme 4
21st Century Student Support
Practices and Programs

Social Studies Lecturer's Proficiency in the Use of Computer for Effective Teaching in Colleges of Education in the South West Nigeria



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Abstract

Computer provides and exposes social challenges in the world today. Social studies lecturers are therefore afforded easy means to facts, ideas and opinion around the world through which they could obtain fresh information to update its content. The computer as an instruction system gives timely, accurate, reliable, affordable and valid information positioned in the global education market. The purpose of this study was to determine the level of proficiency of social studies lecturers in the use of computer in Colleges of Education in the south west Nigeria for effective teaching of social studies. Data were collected from 74 social studies lecturers using a structured questionnaire. Data were analyzed using mean and standard deviation to answer the research question. Result indicated that social studies lecturers possess inadequate level of proficiency in all the items except in item 1 which is booting (starting) computer where the social studies lecturers have indicated adequate level of proficiency. This entailed that social studies lecturers possess inadequate or low level of proficiency in the use of computer for instruction for effective teaching of social studies. The paper recommends that the results of this study should be presented to the authorities of the Federal Ministry of Education in Nigeria to be award of the levels and areas of computer technology competencies of the lecturers as well as their areas of deficiency so as to make them equip in facing the challenges of global teaching competitiveness among others.

Keywords: Proficiency, Computer, Effective Teaching, Competitiveness

Background of the Study

Social studies is the integrated study of the social sciences and humanities to promote civic competence. Within the social studies programmes, social studies provides coordinated and

systematic study drawing upon such disciplines as anthropology, archaeology, economic, geography, history, law, philosophy, political science, psychology, religion and sociology, as well as appropriate content from the humanities, mathematics and natural sciences (Adediran and Abdulkareem 2012). National Council for the social studies NCSS (2008) has long supported civic competence as the goal of social studies. By so doing NCSS has recognized the importance of educating students who are committed to the ideas and values of our democratic republic and who are able to use knowledge about their communities, nation, and world, along with skill of data collection and analysis, collaboration, decision – making, and problem-solving. Students who have these commitments, knowledge, and skills will be the most capable of shaping the future and sustaining and improving the democracy.

Social studies according to Adediran and Abdulkareem, (2012) as a subject meant to help young learners develop competencies that should enable them to deal with and to some extent manage the physical and social forces of the world in which they live, requires inputs from contemporary ideas and facts to achieve this objectives. Therefore, social studies teachers have the challenges to bring in every relevant information around the globe that can facilitate the acquisition of the necessary competencies.

Studies on the use of instructional materials have been carried out and reported in teaching both social studies and other related subjects by several investigators and authors including those of Imogie (1988), Adeyanju (1986, 1988 and 1999), Akanbi and Agun (1986) in Adeyanju (1999) Anyanuwun (2003), Buba (2003) pointed out the need for development of skills by teachers undergoing their training so that they could be able to use a wide variety of instructional materials sufficiently well. The various researchers founded that teachers who are trained and untrained, use some form of materials to teach their lessons. Some investigators claim that whenever they taught with some of the learner aids help the students to become more attentive. In addition, students positive attitude generate more interest for the lesson they teach. As a result, students participate better in activity.

Wornski (1981) in Bozimo (2002) described social studies as “a multifaceted; mosaic, patchwork quilt; a collage of forms, structures and colours”. In line with the above statement, Bozimo further expressed that, “this peculiar nature makes it possible and necessary for great variety of resources materials and methodologies to be employed in social studies teaching and learning: Nwanna – Nzewunwa (2003) where Dike (1989) was quoted as positing that social studies is a field of study that is concerned with how man interacts and interrelates with his fellow man in his society and with the physical and chemical factors in his environment. Social studies is also the study of the impact of science and technology on man and his environment (Kochhar 1988).

The above definition is important because one can infer from it an emphasis on the application of the products of science and technology such as projected or electronic material and other instructional materials in achieving desired social interaction and lubricating healthy relationship in the society. The point that even when social studies concerns itself with the effects of the products of science and technology on the individual, society and their environment, is it still made of some such products to make social studies effective. Adediran and Abdulkareem (2012) examined source of information for teachers in social studies and their level of usage in secondary schools. Findings from the study according to the research questions showed that there was almost no significant difference between female and male teachers on

their level of use of computer. Also the study indicated that the level of use of computer as a source of information for teachers was very poor.

The demand in the world of work is changing and getting sophisticated because of the challenges posed by modern technology and computer in particular, Okoro (2006) stated that any child in the modern world encounters many mechanical, electrical and electronic devices and equipment in his daily life and his education cannot be said to be complete unless he receives some knowledge or education on the functioning and use of these devices and equipment. This can be possible if teachers are able to utilize a great deal of computer technology and to be able to motivate their students with the computer in the process of instruction. It is in line with the foregoing that the paper assessed the level of proficiency of social studies teachers in the use of computer for effective teaching in Colleges of Education in the southwest Nigeria.

The objectives of this study is to:

- (1) Determine the level of proficiency of social studies teachers in the use of computer in Colleges of Education in the southeastern part of Nigeria for effective teaching.
- (2) Investigate the skills needed by social studies teachers on computer technology use for instruction in Colleges of Education in the South West Nigeria.

Research Questions

- What is the level of proficiency of social studies teachers in the use of computer technology for instruction in Colleges of Education in the south west Nigeria.

Methodology

The population for this study was drawn from the six Colleges of Education in the southwest Nigeria. The Colleges are Federal College of Education, Abeokuta, Ogun State, Federal College of Education (Technical) Akoka, Lagos State, Emmanuel Alayande College of Education, Oyo, Oyo State, Osun State College of Education, Ilesa, Osun State, Adeyemi College of Education, Ondo, Ondo State and College of Education Ikere, Eketi State, Nigeria. The study involved eight (80) lecturers teaching social studies.

The instrument for social studies teachers proficiency in the use of computer technology for instruction in the Colleges of Education in the south west Nigeria was obtained through a structured questionnaire titled “social studies teachers proficiency in computer for instruction questionnaire. (SSTPCIO) the instrument comprises of eighteen (18) items on an identified areas of proficiency rated on a 5-point rating scale ranging from grossly proficiency to grossly unproficient. The reliability of the instrument was determined using chronbach alpha at a reliability coefficient of 0.83. The data for this research was collected with the aid of research assistants, who delivered the instruments to all the social studies teachers in the entire Colleges of Education in the south west Nigeria 72 social studies teachers responded and returned the questionnaire signifying an overall response of 90.24%.

Data Analysis

The data obtained from this research work was analyzed using means and standard deviation. Considering the five point rating scale used in the instrument, a decision rule was drawn where cut off point of 3.50 mean was considered. All items with a mean score of 3.50 and above were considered as adequate, while those items with a mean score below 3.50 were regarded as inadequate.

Research Question

What is the level of proficiency of social studies teachers in the use of computer technology for instruction in the Colleges of Education in the south west Nigeria.

Table 1: Analysis of the social studies teachers proficiency in the use of computer for instruction.

Level of social studies lecturers proficiency in.

		MEAN	SDEV	REMARK
1.	Booting (starting) computer	3.85	1.22	Adequate
2.	Launching programme on a computer	3.47	1.27	Inadequate
3.	Word processing	3.40	1.15	Inadequate
4.	Spread sheet (Excel)	3.42	1.25	Inadequate
5.	Presentation (PowerPoint)	3.40	1.24	Inadequate
6.	Desktop Publishing	2.90	1.33	Inadequate
7.	Database Management	2.36	1.03	Inadequate
8.	Programming	2.53	1.44	Inadequate
9.	Course ware	2.50	1.20	Inadequate
10.	Games	3.45	1.22	Inadequate
11.	Computer Aided Design	2.52	1.08	Inadequate
12.	Educational Search Engines	2.96	1.3	Inadequate
13.	Electronic Mails	3.6	1.26	Inadequate
14.	Statistical Tools	2.73	1.4	Inadequate
15.	Computer Aided Instruction	2.72	1.26	Inadequate
16.	Browsing on the Internet	3.31	1.27	Inadequate
17.	Scanning for Virus	2.26	1.25	Inadequate
18.	Installation of Software	2.40	1.23	Inadequate

The data presented in the table above shows on social studies teachers proficiency in the use of computer for instruction in Colleges of Education in the south west Nigeria revealed that all the eighteen items were rated between the mean of 2.26 and 3.85. The responses have indicated that social studies lecturers possess inadequate level of proficiency in all the items except in item (1) and item (13) where the social studies lecturers have indicated adequate level of proficiency at the mean level of 3.85 which is above the cutoff point of 3.50. This shows that social studies teachers possess inadequate or low level of proficiency in the identified areas of computer technology instruction.

Discussion of Findings

It was observed that social studies teachers possess inadequate or low level of proficiency to effectively apply computer technology for instruction in their professional course. Okoro (2006) stated that every child in the modern world encounters many mechanical electrical and electronic devices and equipment in his daily life. This can be possible if teachers are able to utilize a great deal of computer technology and to be able to motivate their students with the computer in the process of instruction. The low level of proficiency of social studies teachers to use computer as an instructional media to teach effectively may also affect the students interest in their teaching. This may result in their students low performance if they encounter the use of computer as instructional media outside their campuses. This was buttressed with the submission of Adediran and Abdulkareem (2012) whose study revealed that, the level of use of computer as a source of information for teachers was poor, most probably because of its accessibility and cost, this therefore affect students performance in their external examination because the students lack adequate information to update their knowledge. It is therefore articulates, fundamental and decisive to prepare social studies teachers to be adequately proficient knowledgeable and skillful for effective computer technology use. This conclusion is consistent with the study of Buba (2003) who found that social studies teachers in Nigeria although formally qualified, face a lot of challenges in the use of computer technology in teaching their respective subject areas. Also after serious interview with the lecturers, it was discovered that many of them don't have access to computer due to the fact that they don't have money to purchase computer drivers.

Conclusion

Although social studies teachers may be bold enough to prepare their lesson with the aid of using computer to teach in absolute terms, the study reported quite low level of proficiency in the use of computer for their instruction in college of education in the south west Nigeria. In addition, although there appeared to be an awareness of the potential for computer technology in Colleges of Education, several factors may account for the social studies teachers perception of computer technology use which may inturn affect their level of proficiency. It is therefore important to note that human factors are the most critical in nurturing the computer technology culture and growing the critical mass of social studies teachers able to sustain the use of ICTs effectively in their teaching.

Recommendations

Based on the findings of the study the following recommendations were made:

- The results of this study should be presented to the authority concern to be aware of the levels and areas of computer technology competences of their social studies teachers as well as their areas of deficiency so as to make them equip in facing the challenges of global teaching competitiveness.
- School management should be ready to identify the areas of competencies of their teacher's so as to prepare and arrange for their teacher's training in the areas of computer technology to be able to demonstrate skills, expertise, and aptitude to utilize computers technology for global teaching competitiveness.

- There should be awareness programme on the benefit of using computer as a source of information.
- Lecturers should be given loans to purchase laptop to be used in their teaching.
- More computers should be made available in the school for the benefit of both teachers and students.
- This study should be replicated in other geo – political areas of the country to be able to determine the areas and extent of competencies of their social studies teachers in the field of computer technology for effective global teaching competitiveness.

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The Qualification Framework for English Teachers at Basic Education Level in Thailand



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Abstract

The qualification framework for English teachers is the standard criteria for English teachers at Basic Education Level to develop their career path and maintain their professional standard. According to section 81 of the Constitution of the Kingdom of Thailand 2007 and also section 9 of the National Education Act B.E.2542 (1999), Teacher Professional Development has been stated.

This study was aimed 1) to study the issues on standard criteria at Basic Education Level 2) to study the qualification framework for English subject area teachers and to propose the standard criteria for English teachers at Basic Education Level.

The study methodology included determining a study framework and study of initial problems of the standard criteria at Basic Education Level at the present days then studying the qualification framework for English teachers after that analyzing the evidence gathered in the second process and then doing the focus group discussion, later then proposing the qualification criteria for English teachers at Basic Education Level in the public hearings.

The findings were as follows: the standard criteria of the English teachers at basic education level consist of three standards which are (1) knowledge standard: linguistic competence, teaching methods, learning and teaching tactics, (2) skill standard: English communication competency and classroom management (3) qualification standard: English capability, experiences and positive attitudes.

Key words: English teachers, Basic Education, qualification framework

1. Introduction

As Education reform envisaged by the new Thai Constitution are key determinants for new developments for English language teaching and learning in Thailand in 21st century, there is a qualification framework for English teachers which is a basic standard criteria for English teachers at twelve-year Basic Education Level to develop their career path and maintain their professional standard in English teaching and learning.

According to section 81 of the Constitution of the Kingdom of Thailand 2007 and also section 9 of the National Education Act B.E.2542 (1999), Teacher Professional Development has been stated. The teaching career path ranging from teachers themselves to all educational officers should be continually supported. Even though, there are no such standard criteria in particular for English teachers, they have to realize some basic qualifications for teaching and prepare themselves before becoming an English teacher in schools.

Lots of researchers around the globe were trying to scope the standard criteria which are appropriate to the level of students. Normally, the standard criteria of teachers at basic education level consist of three standards which are knowledge standard, skill standard and qualification standard but for English teacher, they are expected in many English particular criteria and contents such as linguistic competence, cultures, teaching theories and methods including learning and teaching tactics. They should be able to have effective English communication competency and be able to organize the instruction and classroom management according to the curriculum. Teachers should also have positive attitudes towards English teaching and learning as well.

There are many Teaching English associations around the globe have stated the English teaching standards as follows:

Standard teachers of English Language and Literacy in Australia or STELLA (2002) has stated 3 standards which are

1). Professional Knowledge:

1.1 Teachers know their students

Accomplished English/Literacy teachers recognize each student's uniqueness, learning style and linguistic and cognitive capabilities including potential and achievements.

1.2 Teachers know their subject

Accomplished English/Literacy teachers have a broad, deep and critical knowledge and understanding of the academic discipline (or fields of knowledge) from which their subject and curriculum area are derived, including specialist knowledge relevant to the age ranges they teach.

1.3 Teachers know how students learn to be powerfully literate

Accomplished English/Literacy teachers know that literacy learning is a lifelong process involving complex textual practices shaped by social, cultural and political influences that change over time and in different contexts. They know their students need to be skilled in a wide range of literacies that enable them to participate as active citizens in a democratic society. They recognize that different literacy teaching approaches impact differently on different groups of students.

2) Professional Practices:

2.1 Teachers plan for effective learning

Accomplished English/Literacy teachers keep in mind in their planning the connections between curriculum, assessment and pedagogy.

2.2 Teachers create and maintain a challenging learning environment

Accomplished English/Literacy teachers establish a learning environment in which the linguistic and cultural diversity of all students is valued and respected. They articulate learning goals clearly, negotiating with their students about how best to achieve them.

2.3 Teachers assess and review student learning and plan for future learning

Accomplished English/Literacy teachers understand the central role of assessment in advancing student learning, improving the effectiveness of teaching practice and contributing to planning for future learning. They recognise that the school community as a whole benefits from constructive and coordinated assessment and reporting practices.

3) Professional Engagements

3.1 Teachers demonstrate commitment

Accomplished English/Literacy teachers enjoy the company of young people and value the experiences and insights their students bring to class.

3.2 Teachers continue to learn

Accomplished English/Literacy teachers recognise that the context of their teaching is continually evolving. They reflect on, analyse and are able to articulate all aspects of their professional practice, constantly reviewing and refining their teaching to improve students' learning opportunities, and searching for answers to challenging pedagogical questions.

3.3 Teachers are active members of the professional and wider community

Accomplished English/Literacy teachers work effectively with others to improve their school as a learning community.

Texas Education Agency (2011) in The United States has also stated Standards for English as a second Language (ESL) teacher as follows:

Standard 1 The ESL teacher understands fundamental language concepts and knows the structure and conversations of English language.

Standards 2 The ESL teacher has knowledge of foundations of ESL education and factors that contribute to an effective multicultural and multilingual learning environment

Standard 3 The ESL teacher understands the processes of the first- and second- language acquisition and uses this knowledge to promote student's language development in English

Standard 4 The ESL teacher understands ESL teaching methods and uses this knowledge to plan implement effective, developmentally appropriate ESL instruction

Standard 5 The ESL teacher understands formal and informal assessment procedures and instruments (language proficiency and academic achievement) used in ESL program and uses assessment results to plan and adapt instruction.

Standard 6 The ESL teacher knows how to serve as an advocate for ESL students and facilitate family and community involvement in their education.

TESOL/NCATE or Teachers of English to speakers of Other language, Tnc. (2003) has stated the knowledge the teachers required which are language, Culture, Instruction, Assessment and the core which can be able to divide into 13 points as follows:

1. Describing language
2. Language acquisition and development
3. Nature and role of culture
4. Cultural groups and identity
5. Planning for standards based ESL and content instruction
6. Managing and implementing standard based ESL and content instruction
7. Using resources effectively
8. Issues of assessment
9. Language proficiency assessment
10. Classroom-based assessment for ESL
11. ESL Research and History
12. Partnerships and advocacy
13. Professional Development and Collaboration

In Thailand, according to the National Education Act, there are three main standards for basic Education teachers which are knowledge, skill, and positive attitude towards English. Knowledge involves how to use English language in communication, learning and understanding the culture of native speakers, knowing the differences between Thai and the English language, being able to use English to gain information in other subjects, being able to use English to do lifelong learning, to find pleasure and to use it in their work. Skill involves communication strategies, thinking skills, critical and creative thinking, self-evaluation, learning skills, knowledge seeking skills, technology skills and how to work with others. A positive attitude includes appreciating the English language and its culture. (Arunee Wiriyachitra, 2011)

Moreover, according to Biyaem, 1997, Thai teachers must be able to face difficulties such as:

- heavy teaching loads.
- too many students in a class (45 – 60)
- insufficient English language skills and native speaker cultural knowledge.
- inadequately equipped classrooms and educational technology.
- university entrance examinations which demand a tutorial teaching and learning style.

In this study, the researcher was trying to study “the change” of English qualification framework for English teachers and to propose the standard criteria for English teachers at Basic Education Level. As we are in the changing world period and we are going to be a part of ASEAN community in the near future, we need to look at the criteria closer whether we meet the standard requirement or we need some changes to develop our career path.

2. The Objectives of the study

- 1) to study the situation problems on standard criterions at Basic Education Level

- 2) to study the qualification framework for English teachers and to propose the standard criteria for English teachers at Basic Education Level.

3. Research Methodology

3.1 Sampling Selection

The sample for the efficiency testing consisted of 5 groups of people who are involved in Education which are English teachers, students, parents, English teaching Institutions and English teacher associations.

3.2 Research tools

Research tools were questionnaires.

3.3 Research procedure and data collection

The study methodology included;

- 1) Determining a study framework and study of initial problems of the standard criterions at Basic Education Level at the present days which can be divided into two processes as follows:

- 1.1 Investigating opinions of operational performance of English teachers at Basic Education Level.

- 1.2 Gathering and analyzing the situation problems evidence about the standard criterions at Basic Education Level.

- 2) Studying the qualification framework for English teachers. This stage can be divided into two processes as follows:

- 2.1 Analyzing the evidence gathered

- 2.2 Investigating opinions of the qualification framework for English teachers.

- 3) Analyzing the evidence gathered in the second process and then doing the focus group discussion.

- 4) To propose the qualification criterions for English teachers at Basic Education Level in the public hearings.

4. Results

The findings were as follows:

- 4.1 There are many problems that English teachers have to handle as following:

- teaching loads.
- class size
- insufficient English language and cultural knowledge.
- insufficient English language skills
- inadequately equipped classrooms
- English pronunciation
- lack of opportunity to use English in their daily lives.

- insufficient English text.
- Negative attitudes of students

4.2 Actually the standard criteria for teachers in Thailand are about the same; nevertheless, the standard criteria of the English teachers at basic educational level are particular and unique. In short, they are quite different from other subject areas in the three standards which are as follows:

Standards	Knowledge/abilities
(1) Knowledge standard:	they should have knowledge on English structure, linguistic competence (<u>Phonetics, phonology, morphology, semantics and syntax</u>) cultures and teaching theory and methods including learning and teaching tactics.
(2) Skill standard:	they should be able to have effective English communication competency and be able to organize the instruction and classroom management according to the curriculum.
(3) Qualification standard:	they should have much more capability and experiences along with the attitude towards English teaching.

With the importance of English as a universal language, the changes that come with the National Education Act and the ASEAN community plus the challenges of new technology (IT), we requires the dedication and collaboration of teachers and all educators as well as the private sectors and organizations to help develop the standards of English teachers in Thailand.

5. Discussion and Recommendations

5.1 Discussion

5.1.1 The problems that the teachers have to face such as teaching loads, class size, insufficient English language skills and cultural knowledge, inadequately equipped and so on. This is exactly as Biyaem (1997) has stated about the teachers and learners' difficulties such as :

- heavy teaching loads.
- too many students in a class (45 – 60)
- insufficient English language skills and native speaker cultural knowledge.
- inadequately equipped classrooms and educational technology.

These difficulties are quite common over in Thailand. All teachers have to find the way to solve the problems but the teachers themselves might not be able to fix the problem as some of them did not graduate in English major. Hence, they haven't found any clue about English knowledge and skill including English teaching and learning.

However, there might be lots of teachers who graduated in English field and meet the basic education standards but they still cannot solve the problems because of the workload and class size.

5.1.2 While there are an enormous number of English teachers in Thailand, both trained and untrained, there is also demand in many places all over the country, where there is less competition for work. So the standards of English teachers here are quite different and have a impact to English teaching and learning in the country.

Anyone who is determined to teach in Thailand and prepared to look for English teaching job both Thai and foreigners in schools and Education institutes should keep in mind about the standard criteria for English teachers at a Basic Education Level. At least, they should keep in about basic English teacher qualifications as there will be an Office of Quality Assurance, whose task is to oversee the quality control of education at every level ranging from basic to higher Education level and in every aspect, teachers at basic education level are a main focus in the education reform.

Teachers need a Basic English knowledge which can be able to teach students to reach the international standards. The basic English knowledge is the three standards appearing in the results of this study. Moreover, we are going through ASEAN community in the very near future, the standard should be even stronger as the expectations of students we have nowadays are higher. Students at the present must be able to reach English communication level in ASEAN region. Therefore, teachers themselves shouldn't hold on only to the same pattern of qualification but should open their eye wisely to stronger standards. As Associate professor Arunee Wiriyaichitra (2011) has stated in the article "English Language Teaching and Learning in Thailand in this Decade" about what English teachers in Thailand need to do before teaching as follows:

"Teachers will be offered continuous training with some form of training every two years. In English language teaching, there are several projects being set up for this purpose (e.g. INSET). INSET's objectives are to provide training for teachers in order to develop professionally and keep up with new teaching methodologies. Teachers have to improve their English proficiency. Training methods are in the form of cascade training. Another example of a teacher training project is the project run by Thai TESOL through the Royal Project on Distance Learning. This program is broadcast to schools especially in remote areas and on satellite TV."

Teachers will not only undertake IT course, research to develop their teaching abilities, they should also be able to write e-learning courses as well.

5.2 Recommendation

Researchers on the topics of needs and wants of English in workplaces and at Basic Education level should be considered and focused much more than the past especially about English instruction in South East Asia countries as they are going to be part of ASEAN community in the near future. As a result of that, English teachers can be able to update the role of English and the problems of English language teaching in their own countries or even the countries they would like to work for. It is also a good answer for the teachers who are trying to find the results to improve their instruction precisely towards students' needs. Therefore, further investigation in qualification framework for English teachers, especially in schools in South East Asia countries, is recommended in the future.

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How Learning Object Modules on the Topics of the Circle and the Parabola Influenced School Students and Teachers?



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Abstract

Learning Object Modules (LOMs) are digital lessons, covering narrow topics, which provide immediate feedback and self-assessment. They are a cost-effective way of supporting individual student study. This research set out to investigate 1) students' achievement when studying using LOMs, 2) students' satisfaction with studying using LOMs, 3) students' attitude toward learning mathematics after using LOMs and 4) mathematics teachers' satisfaction with LOMs.

The population was high school students and mathematics teachers who taught them. The samples were 50 volunteer year ten school students, from each of five purposively selected schools in Bangkok and nearby, along with their mathematics teachers. The instruments were a CD ROM containing six LOM lessons and questionnaires for students and teachers.

Data were collected by asking students to study the LOM lessons by themselves, do pretests and posttests, and to fill in a questionnaire; after which, some were interviewed. Teachers were asked to complete the questionnaire and all were interviewed. Questionnaires and score forms from 228 students (91.20%) and questionnaires from all of the teachers were submitted. The data were analyzed by basic statistics.

The study found that: 1) The average of the pretest and posttest were 38.84% and 68.28% respectively. 2) Students' were satisfied with studying using LOMs. 3) Students' attitude toward learning mathematics after using LOMs was at a high level. 4) Mathematics teachers' were highly satisfied with LOMs.

The use of LOMs was able to enhance students' study outcomes. Being easily reproduced and distributed, they could become a cost-effective learning support medium.

Keyword: Learning Object Modules (LOM), Circle, Parabola

Introduction

Today, information and communication technology is essential for most people. It is useful to support teaching and learning. Students not only gain knowledge in the classroom but also from digital lessons that are ready made. Learning Object Material (LOM) is another type of digital medium that can help students to learn by themselves in a short time for a small topic. Students not only learn from the prepared lessons but are able to evaluate themselves and have interaction. Feedback is prompt, showing up as it is needed. The lessons are available to be used anywhere and anytime. Students have the advantage of being able to repeat the lesson as many times as they wish until they understand the content (Ely, Donald P., 2003).

A LOM is a unit of instructionally sound content centered on a learning objective or outcome intended to teach a focused concept. It is a fundamental building block composed of all the instructionally necessary components to comprise a self-contained instructional unit. While traditionally, education content came in blocks lasting for several hours, learning objects are much smaller units of learning, typically ranging from 2 to 15 minutes. Each learning object can be taken independently and is reusable. A single LOM may be used in multiple contexts for multiple purposes. They can be grouped into larger collections of content, including traditional course structures and have descriptive information allowing them to be easily found by a search (Beck, Robert J., 2009). LOMs can be delivered over the internet and can be accessed by a number of individuals simultaneously, with minimal effort, reducing the need for instructors to develop their own instructional components. They allow for increased speed and efficiency of instructional development and decrease faculty preparation time (Freeman, 2004).

The Thai government launched a project giving tablet computers to school students as a tool to find information to help them learn (Prommapan, Supol, 2012). There are many factors which may influence the success of this project in enabling the students to learn more effectively and enjoyably. One of these is high quality digital media to support students' learning. In Thailand, there is a shortage of this type of media in Thai language, especially for school mathematics.

With the characteristics of the LOM, it was hoped to boost students' learning, especially in mathematics, which students found difficult. Therefore, this research set out to investigate 1) students' achievement when studying using LOMs, 2) students' satisfaction with studying using LOMs, 3) students' attitude toward learning mathematics after using LOMs and 4) mathematics teachers' satisfaction with LOMs.

Method of study

The population was high school students and mathematics teachers who taught them. The samples were 50 volunteer year ten school students, from each of five purposively selected schools in Bangkok and nearby (250 students) along with their mathematics teachers. (five teachers). The instruments were a CD containing six LOM lessons: three LOMs each for the Circle and Parabola, along with questionnaires for students and teachers.

The topics for the circle consisted of the concept of the circle, equation for a circle, the center point and radius of a circle in a general form of the equation. While those for the parabola included parabolas with vertices at the origin and at any point on the X or Y axes, and their applications. The LOMs were accompanied by a set of questionnaires. Each LOM was produced using Flash MX and included a pretest, contents and examples, a variety of exercises with solutions, pictures and graphs, and a posttest. Voice recordings providing an introduction to

the LOM, outlining the objectives and explaining how to do some of the examples was included. Basic knowledge was supplied in cases where needed. These LOMs were approved by an expert committee appointed by The Computer Department of STOU.

A set of questionnaires asked about students' satisfaction with studying from the LOMs and the presentation of the contents. The five-point Likert Scale was used and an open ended request for suggestions. It was examined for validity by three specialists and tried out with 48 students of year 10 who were not in the sample. The Reliability of the questionnaire was .866 by using Cronbach's Alpha.

Data was collected two steps. 1) Meeting the sample group of mathematics teacher who taught the sample group of students in each school. They were informed about how to use the lessons from CD ROM by themselves and how to fill in the pretests and posttests marks after taking the tests. Students were asked to study and complete the questionnaires. The CD ROMs, pretest and posttest forms to fill the marks and questionnaires for students were given to the teachers. Teachers were asked to collect the pretest and posttest form and the questionnaires from students. 2) After two months, interviews of all teachers and five random students from each school were conducted.

Students were given a CD ROM of LOMs. They were required to study the contents before studying in the class from their teachers. Questionnaires were completed after the study. There were 228 out of 250 students (91.20%) who returned completed pretests, posttests and questionnaires. The data were analyzed by using percentage, average and standard deviation. The average scores from the rating scale of the questionnaire were interpreted as follows.

\bar{X}	Level of satisfaction	Level of attitude
4.50 - 5.00	Very satisfied	Very good
3.50 - 4.49	Satisfied	Good
2.50 - 3.49	Moderate	Moderate
1.50 - 2.49	Dissatisfied	Bad
1.00 - 1.49	Very dissatisfied	Worse

Results

The results were divided into three topics as follows.

1. Students' achievement when studying using LOMs. The scores of pretest and posttest were compared with the total of 25. The average of the pretest and posttest were 9.71 and 17.07 which were 38.84% and 68.28% of the total score respectively. Details are in table 1.

Table 1 Comparison of students' scores on the total pretests and posttests.

Item	\bar{X}	S.D	% of total score
posttest	17.07	3.99	68.28
pretest	9.71	3.97	38.84

2. Students' satisfaction with studying using LOMs. The satisfaction was divided under two headings as follows.

2.1 Students' satisfaction with the lessons: In general students were satisfied with the lessons (3.80). Students were very satisfied with the item: "I was able to repeat the lesson when I did not understand." (4.52). The next top three items with regard to satisfaction were: "I liked it because I was able to study any time when I wanted to." (4.22), "I gained more knowledge." (4.19) and "I had reviewed basic knowledge that supplemented the lesson." (4.14). Details are in table 2.

Table 2 Students' satisfaction with the lessons.

Item	\bar{X}	S.D
I was able to repeat the lesson when I did not understand.	4.52	.50
I liked it because I was able to study any time when I wanted to.	4.22	.86
I gained more knowledge.	4.19	.70
I had reviewed basic knowledge that supplemented the lesson.	4.14	.59
I was able to evaluate my knowledge.	4.07	.67
I was satisfied with lesson in general	3.78	.81
I did not feel embarrassed when I made a mistake as in the class.	3.75	1.10
I enjoyed studying with the LOM.	3.73	.75
I like it because I was able to control my studying.	3.69	.93
I am able to learn and to understand mathematics by myself.	3.42	.82
It was convenient because there was no need to attend the class	3.42	1.04
I felt that it was not fun like studying in a class.	3.25	.97
It was more difficult than studying in the class.	3.17	.95
Total average	3.80	.38

2.2 Students' satisfaction with the design: In general students were satisfied with the design (3.79). The top three items that contributed to satisfaction were: "The animation/pictures/graphs which made the lessons interesting." (3.96), "Variety of exercises helped me learn more." (3.93), "The pretests and posttests were appropriate." (3.90). Details are in table 2.

Table 2 Students' satisfaction with the design.

Item	\bar{X}	SD.
The animation/pictures/graphs made the lessons interesting.	3.96	.82
Variety of exercises helped me learn more.	3.93	.66
The pretests and posttests were appropriate.	3.90	.72
The given solutions helped me to understand the contents more.	3.84	.80
There were enough examples to learn.	3.83	.80
There were enough exercises to drill and to learn.	3.75	.89
The recorded voice explanations help to avoid the contents being boring	3.33	1.09

In the interviews, students preferred to study the contents in the class first and then use LOMs as supporting media to review the contents before the examination; but it was alright to study the LOM before the class because they could understand the contents quicker than without it. Some students said their parents were curious about what their children were watching on the computer when they heard the unfamiliar voice explaining. Their parents were pleased to find out that their children were studying from a LOM instead of playing games.

3. Students’ attitude toward learning mathematics after using LOMs. Students showed their attitude towards learning mathematics after studying the lessons from LOM after their studying the lessons. In general they had good attitude toward mathematics (3.67). The three items: “Like studying mathematics.” (3.50), “Like to study mathematics in a classroom.” (3.69) and “The believe that mathematics is useful.” (3.64) were rated at a good level. But the heading “Like to study mathematics by myself.” was only at a moderate level (3.23). Details are in table 3.

Table 3 Students’ attitude towards learning mathematics after studying the lessons from LOMs.

Item	\bar{X}	SD.
Like to study mathematics.	3.50	.75
I enjoyed studying mathematics.	3.83	.62
I like to study the subjects without calculation more than mathematics.	2.84	1.17
Like to study mathematics in a classroom.	3.69	.44
I like to study mathematics from a teacher in classroom more than by other methods.	3.95	.86
I like to study mathematics in a classroom and have media to support self study.	3.89	.79
I was interested and willing to pursue extra mathematics knowledge apart from in classes.	3.59	.73
I learnt mathematics well from listening to the lectures.	3.57	.73
I liked to help friends who had problems studying mathematics.	3.53	.77
I did exercises and home worked on mathematics by myself.	3.53	.79
I always liked to ask teachers when I did not understand mathematics contents.	3.51	.83
I did not want to go to mathematics classes because I could not follow friends.	2.04	.95
Like to study mathematics by myself.	3.23	.72
I like to study mathematics by myself from media.	3.25	.96
I want to study mathematics by myself and have some advice from teachers from time to time.	3.25	1.14
I like to study mathematics by myself because it is a good alternative.	3.17	1.00
I could not control myself if I studied mathematics by myself.	2.75	1.10

The belief that mathematics is useful	3.64	.48
I felt that secondary school mathematics was very useful for students.	4.25	.83
I was confident that mathematics helped me to think critically and reasonably.	4.23	.72
I was confident that mathematics was important for me to choose future career.	4.23	.90
I will choose a program that has mathematics at the tertiary level.	3.63	.92
I feel that mathematics is not important for my daily life.	1.87	1.011
Total average	3.67	.424

4. Mathematics teachers' satisfaction with LOMs.

All five teachers were satisfied with the LOM lessons (4.20). They were very satisfied with the item "It is convenient for students to study." (4.60). Details are in table 4.

Table 4 Teacher's satisfaction with LOM lessons.

Item.	\bar{X}	SD.
It is convenient for students to study.	4.60	.55
The lessons are interesting.	4.40	.55
The presentation of the contents, examples, exercises, pretests and posttests are appropriate.	4.40	.55
The given solutions/hints for exercises helped students learn more.	4.20	.45
Providing basic knowledge was appropriate	4.20	.45
Students were able to study by themselves.	4.20	.45
The lessons helped to release teachers from teaching duty.	4.20	.45
In general satisfied with the lessons.	4.20	.45
Having color pictures, animation and sound captures students' attention.	4.20	.84
The variety of exercises challenged students' ability.	3.80	.45
Self evaluation helped students to be active.	3.80	.45
Average	4.20	.31

The results for the teachers' interviews corresponded to the questionnaire.

Conclusion and discussion

It was concluded that the LOM lessons influenced high school students' outcomes. The results were reflected in the outcome of the achievement. Students gained more knowledge and the average score was higher than 65% even though this type of learning, studying lessons from digital media on their own without any help, was not common for Thai students. Considering that the result for the ONET (Ordinary National Educational Test) score for year 12 level in Thailand for academic year 2012 was 22.73% (Wadisiri, Sak-Rapee, 2013), it indicated that digital media could be a very useful way to support students' learning.

Students and teachers were satisfied with studying using LOMs because the LOMs were designed in small units with emphasis on concept, drill, enough exercises, immediate feedback and animations (Beck, Robert J., 2009). Students were able to assess their progression. They were able to study as many times as they wanted, to gain knowledge. They did not feel embarrassed when they made mistakes as they did in class. They also found the instructions easy to follow and were not tempted to skip steps and just look at the answers.

The use of LOMs could be one alternative strategy for teachers not only to help students to become more interested in mathematics and more independent in their approach to learning, but also to help them gain more knowledge.

Suggestions

The results from the study showed that high school students' achievements on the posttests were higher than 65% of the possible score. It was an indicator that digital media can help students learn by themselves. Students and teachers were satisfied with studying from LOMs. The culture of teaching and learning may be changing, from face-to-face to independent study with some help from the teachers. Therefore, educational institutions should pay attention to the possibility of sharing educational materials. It is not only cost saving but it helps solve the problem of teacher shortages and encourages students to be independent learners. Also educational digital media would suit the new generation of students learning as they are in an era in which technology is increasingly becoming a familiar part of their daily lives.

The sharing of Learning Object Material between schools would also benefit teachers by exposing them to a range of different approaches to the teaching of their subject, helping them to broaden their approach to their own teaching.

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When worlds collide – Examining the challenges faced by teacher education programmes combining professional vocational competence with academic study, lessons from further education to higher education



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Abstract

This paper examines the challenges faced by higher education institutions in designing, teaching and quality assuring programmes of study which, of necessity, must combine the gaining of professional vocational competence with academic study. The paper gives recognition to the policy framework in which these programmes fit – with particular reference to teacher education. It presents the challenges at each stage, from ensuring that curriculum design meets the needs of the profession, to the quality assurance mechanisms which ensure standards and compliance. Initially the paper draws on published research to examine how and why these policy decisions have been taken in much of the developed world. The paper goes on to present a new perspective, however, by comparing current teacher education mechanisms with those that have developed in the past twenty years in further education, looking at the parallels and addressing how far we can learn from the experiences of further education colleagues to ensure that we manage to combine the two different worlds of academia and vocational training without compromising either. It suggests ways in which higher education institutions can learn from further education to tackle the challenges to ensure that concentration on training students to be good teachers is done without compromising personal growth and intellectual development, and examines how far it is possible to meet the demands of higher education quality controls which are applied with differential emphases.

Keywords: Quality measures, vocational higher education, lessons from F.E.

Introduction

Once upon a time, in the United Kingdom, education and training were straightforward. If you wanted to be a hairdresser, a bricklayer or a motor mechanic you knew exactly how to learn to do it because all vocational training was via an apprenticeship model – what was known affectionately as “sitting next to Nellie”. This represented a mode of learning a vocational craft which relied on watching the ‘expert’, copying what he or she did and then repeating it yourself. Regulatory/employer bodies said what you should learn and how you should do it and set the criteria which learners had to achieve in practice; meanwhile colleges provided the academic input - more for some subjects and less for others. In some areas this would require a block of time away from practice, in other areas it would be evening classes or day-release classes which provided the theory behind the practice. For higher level vocational subjects such as medicine or teaching, there was a sustained period of academic study in university followed by a mix of academic study and practice, linking the practical to the theoretical with an emphasis on combining the two. The focus of the academic study was not static and over the years of the twentieth century there were several paradigm shifts (Broudy 1956) as teacher training moved from an emphasis on skills to an emphasis on reflective practice (Schön 1983) and back again (Burke 1995). Overall, however, those teaching in higher education emphasized the professional and theoretical and linked it to practice at later stages.

The changing climate

As the twentieth century progressed towards the millennium, things began to change. The UK government began to get much more involved in education as it became a vote-winning (or vote-losing) issue (Pollitt and Bouckaert 2004). As the world shrank through the rise of multi-national organisations the national government became much more involved in the day-to-day running of schools, hospitals and other sectors where previously they had left such matters to those whom they regarded as autonomous professionals (Bottery 2006).

The influence of the rise of multinational institutions is also, in itself, a reason for government intervention. This rise is without historical parallel and has persuaded the UK national government to look at education and training in terms of trans-national competition and to formulate policy in response to two factors:

1. the qualifications demands of the powerful multinational companies and financial and trade organisations; and
2. the perception of where their countries are located within an international league table of skills and attainment.

In addition to governmental involvement, academic drift began to play a part in the changing educational climate; what Berg called “a race in which everyone runs harder but no-one wins” (Thomas 2001, p. 29). Thus every job began to demand higher and higher entry qualifications and exit awards. Jobs which had required school-leaving certification in the past now also demanded post-statutory schooling qualifications. Jobs which demanded Diploma level qualifications now began to seek those with degrees and so the spiral continued to rise.

To some extent this reflected the sheer numbers of those who were accessing higher level qualifications in the second half of the twentieth century, thereby giving employers much greater choice in who they selected. It also reflected, however, the increasing range of skills needed in

order to do most jobs. A particular example is provided by ICT, where skills undreamt of in the past were now routinely required in most professions (Shaw 2012).

The position in the U.K.

In order to understand the context of this paper, it is necessary to have some understanding of the systems currently in play in the United Kingdom. At present, all UK education is divided into 8 levels from Level 1 (basic secondary education) to Level 8 (doctoral level). A key point is that today, in the UK, progression is possible between all levels and types of qualification (Shaw & McAndrew 2008; Shaw 2011). Making a decision to enter a vocational route at age 16 does not debar one from accessing a higher academic route later although there are still some cultural barriers in play (Connor, Sinclair and Banerji 2006). This allows higher education students, for example teacher trainees, to be drawn from a wide range of backgrounds, not just the traditional academic routes of the past, and therefore gives access to a much wider field of applicants than in the past. It also, however, adds a further complication to designing and delivering good training programmes which can meet both academic and vocational targets, because the backgrounds of the incoming students are so diverse.

Curriculum and Regulation on Mixed Academic and Vocational Programmes

In each of the areas, and at each of the levels, there are regulatory bodies which set the curriculum and establish the criteria for success. There are also national inspection bodies which routinely assess the quality of provision. For schools there is a National Curriculum, there are set tests, Awarding Body (e.g. Edexcel) regulated public examinations and Ofsted inspections. For Further Education (F.E.) there are Awarding Body (e.g. BTEC/City & Guilds) competence-led curricula, public examinations, external verification of results and Ofsted inspections. For Higher Education (H.E.) there are internal Periodic Reviews which are peer-led and Quality Assurance Agency (QAA) reviews of curriculum; for vocational degrees there are also professional body standards-led curricula and inspection regimes – e.g. by the Teaching Agency for teaching. This leads to substantial differences in H.E. between those who offer professional/vocational degrees and those who offer non-vocational academic degrees. For non-vocational academic degrees (such as history, philosophy, geography, mathematics) universities:

- set their own curriculum (guided by QAA benchmark suggestions of content)
- devise their own learning outcomes
- set their own timetables

For vocational/professional degrees (such as teaching, nursing, social work) universities:

- have to conform to all of the above **AND**
- follow the guidelines of their professional body
- meet the standards for competence set by their professional body
- ensure that practice opportunities are built into the programmes
- inspect practice providers to ensure that they also meet professional body requirements

There are challenges in the devising of curriculum for both sets of academic staff. The whole notion of designing curriculum to pre-determined learning outcomes has received much criticism, and in some cases it has even been suggested that this learning-outcome-driven approach is counter-productive as it undermines the epistemology of higher education. They suggest that the focus on learning outcomes and quantifiable measures of success loses the

fundamental notion of what H.E. is, and should be, about (Burke 1995; Arnal & Burwood 2003, Burwood & Palaiologou 2010). There is much to commend these criticisms in that they give recognition to the fundamental nature of learning at this level with its emphasis on lateral thinking, questioning and debate as opposed to the hitting of concrete “targets”, as if learning was a functional activity with set outcomes to be achieved. Nevertheless, those who design curricula for non-vocational programmes have freedom to create learning outcomes which move beyond the concrete and into the wider philosophical scope of education, but those who are designing vocational programmes are critically handcuffed to sets of learning criteria to be achieved.

The challenges

As well as philosophical challenges relating to whether the vocational degree subjects in H.E. are truly leading to creating professionals or to training craftsmen and craftswomen these issues raise considerable practical problems to solve. For example, the university year runs from October – May but postgraduate teacher trainees have to be in university from September – July to fit in their practice days. This leads to a wealth of problems with timetabling, facility opening hours, staffing and student support. More significant than the practical problems are the considerable cultural challenge raised by the operation of vocational teacher training degrees; these stem from the fact that universities have at their heart the need to encourage their students to question received wisdom, argue and debate whilst schools, headteachers and Ofsted inspectors very definitely do not encourage this.

Students on vocational programmes in universities face extreme pressure. They have to achieve academically to a high standard to gain their degree but at the same time they have to learn their craft as vocational experts and meet set performance criteria. The biggest challenge they face is also related to the cultural differences, as highlighted above. They have to balance being critical learners in their academic studies with being obedient practitioners in their placements. These two roles can often be in direct contrast to each other which presents the student with an endless cycle of switching from one to the other (Kirk 2011). It can also cause conflict for those who are responsible for teaching and training them; almost all those who have taught trainee teachers have faced the situation of having an excellent practitioner amongst the student group who could not achieve academically and thus was ‘failing’ despite being wonderful in the classroom, or, conversely, an academically gifted student who could not perform at a suitable level in the classroom.

In order to meet these challenges university staff have to work ceaselessly to involve practitioners in the academic side of the teaching, involve academic staff in the training elements of the programme of study and provide students with all the necessary forums to discuss their practice and relate it to theory under the guidance of staff from both sides of the divide. It is truly a situation in which very different worlds are continually colliding in the efforts to meet both sets of criteria and both sets of masters. The biggest challenges, however, are those which come under the heading of “quality assurance”.

How Quality is Assessed

In relation to professional practice, quality must be measured against concrete skill standards. This strongly reflects the ways in which quality is assessed at lower levels in F.E. colleges and it is here that we see how H.E. is moving ever closer to the quantitative assessment of quality

which has developed over recent years, not just in terms of vocational degrees but in relation to all its provision. The two models – F.E. and H.E. - belong to different cultural heritages and are underpinned by different epistemologies; thus the slow introduction of the F.E. models of quality assurance are now coming into conflict with the traditional H.E. models. This is nowhere more apparent than in vocational higher education programmes.

When we examine the different models of quality assessment we find:

- In F.E. it is very structured and driven by quantitative measures – tied to retention rates, success rates and funding
- In H.E. it has traditionally been:
 - teaching which is led by peer-reviewed research of international quality
 - acceptance of the best possible candidates for places (with no pressure in terms of recruitment targets)
 - academic staff with freedom to challenge the status quo

Yet in a changing climate in H.E. quality is rapidly becoming measured by quantitative data and this causes problems exactly as it does in FE. For example – each university is placed in a league table of “university success” by the media and if it falls below a certain point it can be excluded by overseas governments with catastrophic effects on finance. The criteria used by the press include things like “the number of firsts and 2:1s” (classified as value-added), student perceptions, staff-student ratios, face-to-face class hours and employment rates. These measures can be in direct conflict with the old traditional measures of H.E. quality; for example, the raising of classroom hours and lowering of staff student ratios inevitably reduces the time available for research to underpin teaching.

These anomalies exist for all H.E. programmes but are even more marked for programmes such as teacher training where Ofsted inspections are driven by examinations of quantitative data. As an example, Ofsted inspections will assess the quality of support for students with disabilities by comparing the pass rates and attainment grades for disabled students against the same rates for non-disabled students. They do not assess how much support has been given, the forms which it has taken, the relevance of the support or the nature of the disability. These are qualitative measures which do not figure in their calculations of quality.

Why does it matter?

This paper argues that these changes matter because the lessons from F.E. in the last twenty years would suggest that moving towards a quantitative model of assessment does nothing to drive up quality but, rather, it serves as a reductionist model which undermines real quality in learning and teaching in favour of a simple numerical model. This is even truer when funding is subsequent upon the story which these measures tell. The Wolf Report (DfE 2011) has already identified that such measures in F.E. have been damaging to quality. Wolf says in the report:

The current payment system post-16 (like performance tables pre-16) gives institutions strong incentives to steer students into courses they can pass easily. In addition, since most vocational courses are entirely teacher-assessed, pressures to reduce standards apply directly to a very high proportion of post-16 provision. (Wolf 2011 p.61)

Wolf goes on to recommend disaggregating funding from success in F.E. to ensure that quality is maintained, yet at the same time H.E. is inexorably sliding down the same path and thus heading for a system which puts pressure on staff to indulge in grade inflation to ensure league table status and subsequently funding.

Similarly, the criteria contained in the new Ofsted Framework (Ofsted 2012) make demands which force staff into impossible positions. The quality of a teacher training provider is predicated upon the attainment of students in practice placements. The attainment grades are derived from a wide range of measures, mostly assessed by the H.E. staff themselves, and only those providers who have high numbers of trainees gaining the top grades can be guaranteed an allocation of places on their teacher training programmes in subsequent years. Thus an H.E. provider can only guarantee that they will have students (and consequently jobs for staff) in future if all their trainees attain the highest grades in their teaching practice placements. The flaws in this system hardly need to be spelt out and, as Wolf has identified, have led in F.E. – where this format has been applied for decades - to a situation where students are not sufficiently challenged for fear that they might fail and this has led inexorably to a decline in standards.

Conclusions

For generations things have remained the same; now education is moving at a breakneck pace with change every year - this mirrors the way the world is changing and we need to be ready to adapt. For those who are training the professionals of the future this is a daunting task but in order to do it effectively, universities need to ensure that they successfully marry up the two worlds of academic study and professional craft. They need also to ensure that quality measures, devised to assess craft skills and reduce everything to simple numerical data, do not become the drivers of academic standards. Students need to be given clear sets of skills in order to become good practitioners, but in H.E. they also still need safe spaces to question received wisdom, challenge the status quo and continually reflect on how, when and where this is (and is not) acceptable.

Bridging the gap between the practical and the academic is now critical; practitioners of the future will all need academic skills as well as practical ones to cope and be the best in the 21st century. In addition, university staff need to be creative in meeting quality targets which come from both sides of the divide – those from the academic masters and those from the vocational masters. We must learn from the experiences in Further Education and not be driven ceaselessly down the path of ‘counting beans’ as a means of measuring academic quality. Good teachers need to be intellectually gifted, academically adept and have the ability to think laterally to pursue their craft. They hold children’s intellectual lives in their hands and the university sector must not be driven by a quantitative imperative to devalue their education and training and reduce an assessment of quality to countable pieces of information. We need teachers who can deliver effective lessons but we also need them to be creative, clever, vibrant individuals who can ‘think outside the box’ to inspire the next generation. In order to do this teacher trainers need to be willing to create quality systems which meet national targets but to do so with a firm vision that education is about much more than a simplistic reductionist stance. They must encourage debate and challenge at every opportunity to ensure that tomorrow’s teachers are as good as they can possibly be.

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Co-Teaching in Inclusive Classrooms to Meet Diverse Needs



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Abstract

*Today's classrooms are more diverse than ever before and we, as educational leaders and teacher educators are challenged to meet the needs of **all** students including those with disabilities, other special needs and English Learners. Students in today's inclusive classrooms bring with them very diverse backgrounds, strengths and needs. Given the diverse skills of all students and the increased expectation for each of them to access the general education curriculum, it is understandable why teachers may sometimes feel overwhelmed.*

Co-Teaching is:

"Two or more team members teaching a class together. When special and general educators teach together, the motivation is often more effective instruction of a diverse group of students." (Snell & Janney, 2000)

By working collaboratively in a co-teaching relationship, we can tap into the expertise and experiences of both general and special educators to more effectively meet the needs of all students.

*Teacher preparation programs need to incorporate proven, research-based strategies that will enable their graduates to maximize the positive impact of co-teaching partnerships. This session will describe the essential components for a co-teaching program, practical ways to define roles, a variety of co-teaching approaches and ways to plan and deliver instruction, as well as ways to maximize the strengths of both teachers and students. The emphasis will be on creative and time efficient approaches to use in the classroom and teacher education programs that have been gleaned from the presenter's extensive experience in diverse classrooms and from her latest book: *The Co-Teaching Book of Lists* (2012), Jossey-Bass.*

Keywords: Collaboration, special education, inclusion, co-teaching

Introduction

Co-teaching is when two professionals (usually a special education and general educator) work together to share in the planning, instructing and ongoing assessment of a group of students. This model has also been adopted in delivering instruction to other diverse populations including at-risk learners, advanced learners, and English learners.

Below are characteristics of this model that provides necessary support services and programs for 21st Century student support:

- Two or more professionals
- Both teachers are actively involved with students in whole group and small group instruction
- Delivering instruction collaboratively to students with diverse needs
- Two teachers are physically present in heterogeneous classrooms with joint and equal responsibility for instruction
- Both teachers share the leadership role in the classroom
- Co-teaching makes communication and collaboration a priority
- Both teachers share in the planning and assessing process
- Continuum of services depending on the needs of the students
- Instruction delivered primarily in a single classroom setting
- Teachers share joint ownership of class, share resources and accountability

However, having two teachers in the same classroom is not enough –co-teaching requires co-planning, co-instruction and co-assessment.

This form of collaborative teaching optimizes the service delivery of instruction for students with special needs in the regular classroom and benefits all students and both teachers involved in the process. Co-teaching enhances the impact of 21st Century skills as teachers share the designing, delivery, monitoring and evaluation of instruction for a diverse group of learners. This approach provides integrated services for all students, regardless of their learning needs (Gately & Gately, 2001).

Framework for Co-Teaching

In teaching **diverse learners**, there are many facets to the success of a co-teaching program.

School culture

- Collaborative, collegial ways of working together
- Collective vision of an inclusive school
- Commitment to shared vision and beliefs
- System of traditions and rituals

Organization

- Dedicated and informed leadership
- Collaborative scheduling
- Ongoing professional development
- Adequate facilities and resources and use of space

Collaboration

- Time for reflection and planning

- Tapping into strengths and talents of each teacher
- Clearly defined roles and responsibilities
- Personal attributes and beliefs
- Utilizing all available resources

Instruction

- Scheduling and planning
- Adaptations and modifications
- Ongoing assessment and grading
- Differentiated instruction
- Use of multiple intelligences
- Whole and small group activities
- Realistic expectations
- Carefully defined procedures and routines
- Selection of appropriate co-teaching models

What are the benefits of co-teaching?

From a teacher's perspective

Co-teaching, when done properly, has the potential to be one of the most innovative practices in education. The knowledge and skills exchanged among team members and the higher teacher-student ratios are some of the main benefits of implementing this process.

In a co-teaching classroom that fully utilizes the expertise of both teachers, students are more likely to achieve more to be successful and be more on-task than they would be in a traditional pullout segregated program.

Some of the other benefits include:

- Students with learning and behavior problems are surrounded by positive peer models in the general education classroom and their behavior will most likely improve. This is a benefit for classroom management for the teachers.
- Educators who had experienced co-teaching found that they were more energized and creative, were able to trust one another, and had more fun teaching (Adams & Cessna, 1993).
- Co-teaching encourages teachers to share expertise, providing one another with valuable feedback (Cross & Walker-Knight, 1997; Hughes & Murawski, 2001).
- Teachers involved in co-teaching relationships state that this relationship resulted in increased professional satisfaction, opportunities for professional growth, personal support, and opportunities for collaboration (Walter-Thomas, 1997).
- Co-teaching enables whole group instruction to be provided while still meeting individual needs (Adams & Cessna, 1993).
- The value added by having a special education teacher in the room to co-teach resulted in more individual attention for students, more on-task student behavior, and more interaction with teachers (Zigmond, Magiera, & Matta, 2003).
- Special education teachers gain insight into the realities of the general classroom while general educators learn valuable lessons in planning, accommodating and instructing

students with learning or behavioral difficulties (Friend & Cook, 2003; Saland, et.al., 1997).

- Co-teaching makes it easier to conduct hands-on activities and provide flexible testing situations (Cross & Walker-Knight, 1997).

From: *Co-Teaching in the Inclusive Classroom: Working Together to Help All Your Students Find Success (Grades 6-12)*, by Dr. Wendy Murawski (2004).

Benefits of Co-Teaching for Students

- When provided with proper supports and learning strategies, students have the benefit of a content expert providing instruction, and they have the benefits of a learning strategies expert to provide necessary interventions, scaffolding, modifications for success.
- Behavioral and academic expectations remain high for students (Dieker, 2000)
- All students receive more individual attention and more interaction with teachers (Zigmond, Magiera & Matta, 2003)
- Increased student engagement & increased use of strategies by students (Boudah, Schumaker & Deshler, 1997)
- Increased self-confidence and self-esteem, enhanced academic performance, increased social skills and stronger peer relations for all students involved (Walter-Thomas, 1997)

Selecting a Co-Teaching Approach

How do co-teachers decide which approach to use?

Co-teaching is most effective when both teachers decide collaboratively which approach to use to fit the lesson, the needs of the students, the space and the strengths of the teachers involved.

Here are some additional factors to consider when selecting a co-teaching approach:

Student characteristics and needs

The primary focus needs to be on the **students**:

- Learning needs
- Student behavior
- Student's level of language acquisition
- Level of student motivation

Teacher characteristics and needs

- Teacher personality, strengths and learning styles also impact the approach to co-teaching that is chosen
- Co-teaching will look very different in different classrooms at different times of the year and based on the unique characteristics and needs of the teachers.
 - if two teachers have contrasting teaching styles, it might be best to select an approach that enables them to teach independently in the same room and rotate the groups of students.
 - if the teachers have compatible teaching styles and work easily together, a more shared approach might be appropriate
 - If the lesson involves direct teaching, teachers might select one teach and one support model with the whole class

- if the lesson is hands-on, that might require small-group work and teachers might choose station teaching or alternate teaching

Curriculum, including content and instructional strategies

- Important considerations in selecting a co-teaching approach is the content of the curriculum to be taught and the instructional strategies that are most effective for addressing the content
- highly structured content and procedures might require one approach, while less structured content, such as a classroom discussion might suggest another approach

Pragmatic considerations and physical space

- Focusing in on the classroom setting for co-teaching, certainly may impact your choice of co-teaching approaches
- in a crowded classroom, an approach that has more carefully constructed procedures and routines might be more appropriate in a restricted space
- flexible grouping, station teaching, alternative teaching or parallel teaching may be challenging to implement in a small classroom
- teacher flexibility and creativity help to differentiate the content and presentation despite space restrictions.

From *Successful Co-Teaching Strategies: Increasing the Effectiveness of Your Inclusive Program (Grades 1 – 12)*, by Dr. Marilyn Friend (2004).

How do you begin the co-teaching experience?

There are so many things to be considered when beginning a co-teaching partnership. It is a multi-faceted process of integrating teaching and planning effectively.

Get a commitment of support from your administrator

- It is important that there is school-wide support for co-teaching at your site
- Administrative support is essential for co-teaching success
- It is helpful to create the master schedule to allow English learners to be placed and schedule their classes first before the general education master schedule.
- This process helps insure the availability of the ESL teachers and appropriate placement of the students according to their specific language needs

From an administrator's perspective: Professional development planning

- Conduct a needs assessment for entire staff about issues of concern for the co-teaching process
- Prepare a schedule for initial professional development and ongoing coaching and support throughout the year
- Hire an effective consultant who will customize the quality of training to meet the needs of your staff
- Provide incentives so that general and ESL teachers attend together
- Co-teachers need to plan for their own professional growth on an ongoing basis for continuation, extension and possible changes in the program.

Second steps

- Define co-teaching as a team
- Carefully look at the benefits and analyze the challenges
- Assess your students' needs and your teaching styles
- Review various models and content to be taught
- Clarify roles and responsibilities
- Develop procedures and routines
- Communicate, communicate, communicate!
- Start small! In the beginning teach only one or two lessons
- Meet and debrief the experience
- Plan next steps together

Creating grouping for the co-taught classroom

- It is important to create a heterogeneous grouping of students for the co-taught classroom
- To maintain a positive mix in the co-taught classroom, consideration also needs to be given as to the nature of the general education students.
- Too many "English learners placed in one class can prove problematic for student success due to a lack of proper role models and enriched language experiences.

Selecting a co-teaching partner

- Be sure to select someone who is willing to co-teach and is enthusiastic about the process
- Assess and make a list of each teacher's strengths and styles of teaching
- Share expectations and keep communication open
- Agree upon a classroom management system
- Determine which students will be in the classes
- Inform other teachers, counselors, specialists, parents, support staff
- Keep in mind it is all about student success and mutual professional growth
- Set aside time for program planning (what, how, when – the big picture)

Select a teaming model to use in the co-taught classroom

- Review pros and cons to each approach and base your decision on the needs of the students and the content to be covered as well as the teaching styles of the teachers involved
- Whatever approach is selected, strive for equity of the two teachers in the classroom. It is important that the ESL teacher has an active role
- Keep in mind that there is no one right way to approach co-teaching. The approaches may be changed as the relationship evolves. Co-teaching is a learning experience and can be used in alternative ways.

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The Effect of Cooperative learning method on Students' Retention in Junior Secondary School Mathematics



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Abstract

Many students turn out to be very miserable and not interested in mathematics lessons because of the difficulty to recall such concepts with ease after a period of time which is defined as retention. Retention is defined as the ability to recall learnt concepts after a period of time and students require it in the study of mathematics at the secondary school level because most of what is learnt at the lower level will be built upon as the student progresses in the field of study. The reason for this difficulty may vary but related to the teaching methods employed in teaching such lessons. Student performance in mathematics would be increased if retention scores is increased through interactive teaching method like the cooperative learning method. In cooperative learning method, the students are encouraged to study together with aim of completing common goals by contributing their individual effort.

This study investigated the effect of cooperative learning method on student retention in mathematics using 120 students randomly selected from 2 secondary schools in Obio-Akpor Local Government Area of Rivers state, Nigeria. It was a quasi-experiment study while Achievement test and questionnaire were administered to the students, data collected was analyzed using t-test and the results from the findings revealed that cooperative learning method increased students' retention in mathematics and thus improved students' performance.

Keywords: Cooperative learning method, Retention, mathematics, achievement

Introduction

Many students turn to be unhappy and uncomfortable during and after mathematics classes because of the difficulties experienced when asked to recall from memory some concepts, these reasons includes teaching methods being employed by teachers. Harbor Peters (2001) said that poor performance in mathematics is related to poor teaching methods and that conventional teaching methods have not been very successful likewise Udeinya and Okabiah (1991) blamed the poor performance of students in mathematics on some methods and approaches to teaching which has reduced the level of participation and motivation. Only a carefully designed teaching

method can produce effective learning. Effective learning is achieved through active participation, when a student is involved in the learning process he/she will be able to remember whatever was done in the activity or what the teacher said in course of the activity. Hence active participation within and outside the classroom reinforces memory which produces or lead to good academic achievement in all academic fields including mathematics.

One of the student active teaching methods proposed by Johnson and Johnson (2000) that has positive effect on students' achievement and retention of concept is cooperative learning method. Cooperative learning method is learning through cooperation or collaboration with others most times the students work in small groups by contributing and sharing their own ideas to complete common goals. In this process, student's produces interaction to many activities such as communication, observation and support. Mckeachie (2000) described a typical cooperative learning class as a class where students often explain the concept being taught to achieve what is expected and that explanation provided from one student to another is a win-win solution. He further said that explanation not only enhances learning but also depends on understanding of the student hence repeated explanation of the concepts brings forth retention of the concept over a period of time.

Retention is the ability to bring forth, recall or remember what has been said or taught. Bakkour (2012) defined retention as preservation of the aftereffects of experience and learning that makes recall or recognition possible also a persistence of learned behavior or experiences during a period when it is not being performed or practiced. Retention in a mathematics class is therefore of great importance because concepts are hierarchy in nature meaning students build on already known mathematical concepts to establish an unknown concept..

Mathematics concepts need to be presented to the learners in a way that will make recalling of the concept fast and easy. Studies on cooperative learning method has shown that it has positive effect on students achievement (Sofeme, 2012; Acar & Tarhan, 2008; Nicholas,1994), and increase student retention scores. Therefore the purpose of the study was to determine the effect of cooperative learning method in enhancing retention of mathematical concepts in junior secondary 11 students.

Research questions

- (1) To what extent does cooperative learning method enhances student retention in mathematics
- (2) To what extent does cooperative learning method enhances student performance in mathematics

Research hypothesis

The following null hypothesis directed the study

1. There is no significant mean difference in retention scores of students taught mathematics using cooperative learning method and those taught without the cooperative teaching method.
2. There is no significant mean difference in performance scores of students taught mathematics using cooperative learning method strategy and those taught without the cooperative teaching method.

Methodology

Research design

This study is of a quasi- experiment design.

Population of the study

The population of the study was all junior secondary 11 students (Js11) in Rivers State, Nigeria

Sample and Sampling Technique

Two secondary schools were randomly selected for the study from the schools in Obio-Akpor Local Government Area (L.G.A). An arm of Js11 class was randomly selected from each of the schools to form the control and experimental group. The experimental and the control groups had sixty (60) students each making a total sample of 120 junior secondary 11 students.

Research Instruments

The research instruments used for the study are Mathematics Performance Test 1(MPT 1) a 20 test items used as the pre-test to test mathematics entry level of the students, Mathematics Performance Test 2(MPT2) is also a 20 test item used as the post-test to test students' performance after the experiment and Mathematics Retention Test (MRT) a reshuffled MPT 2 was used to test students retention scores. The tests were face validated by two mathematics educators and the content validations of the tests were ensued using the test blue print for junior secondary mathematics including these topics number and numeration, Algebraic processes, ratio and simple interest. The reliability coefficients of the tests ranged from 0.69 to 0.75 using Kuder-Richardson KR-21 formula.

Procedure

Two research assistants and the class teacher for the experimental class were trained in the art of conducting cooperative lessons prior to the commencement of the study.

The students in the experimental group had to solve mathematics problems collectively in small groups with research assistants while the students in the control group solved same set of problems individually. The entire study took place during the first six weeks of resumption in first term of the 2012/2013 school academic year. The posttest (MPT2) was administered on the fourth week while the retention test (reshuffled MPT2) was administered on the sixth week

Analysis

The mean and standard deviation for each of the groups (Control and Experimental) scores were calculated and the hypotheses analyzed using the student's t-Test

Results

The following were the findings of the research

Research Hypothesis 1

Null hypothesis: There is no significant mean differences in retention scores of students taught mathematics using cooperative learning method and those taught without the cooperative learning method.

Alternate hypothesis: There is significant mean differences in retention scores of students taught mathematics using cooperative learning method and those taught without the cooperative learning method.

Table 1: Results of the t-test on Retention scores of students in Experimental and Control Groups

Group	N	Mean \bar{X}	Standard Deviation (std)	df	t-table	t-critical
Experiment	60	17.65	3.70	118	6.80	1.64
Control	60	10.33	1.98			

***Significant at $p \leq 0.05$**

The result obtained from the study as recorded in Table 1 shown that the calculated t-value was greater than the t-critical. Thus the retention score of experimental group was higher than the control group. So, the null hypothesis was rejected and the alternative hypothesis upheld. Hence, there is significant mean difference between the group taught with cooperative learning method and the group that was not taught with cooperative learning method was not upheld

Research Hypothesis 2

Null hypothesis: There is no significant mean differences in performance scores of students taught mathematics using cooperative learning method and those taught without the cooperative learning method.

Alternate hypothesis: There is significant mean differences in performance scores of students taught mathematics using cooperative learning method and those taught without the cooperative learning method.

Table 2: Results of the t-test on performance scores of students in Experimental and Control Groups

Group	N	Mean \bar{X}	Standard Deviation (std)	df	t-table	t-critical
Experiment	60	16.65	2.37	118	4.81	1.64
Control	60	10.21	1.18			

***Significant at $p \leq 0.05$**

The result in table 2 revealed that the students taught using the cooperative learning method had a mean performance score of 16.65 and those taught without the cooperative learning method had a mean performance score of 10.21 the standard deviation for the experimental and control groups were 2.37 and 1.18. This indicates that there is a significant difference in the performance of those taught with the cooperative learning method and those taught without the cooperative learning method.

Discussion

The purpose of this study was to determine the effect of cooperative learning method on retention in junior secondary school mathematics also considered was if the cooperative learning

method will improve students' performance in mathematics. The discussion was based on the results of the experiment in the study of the two groups of Js11 students.

A close inspection of the result of the t-values obtained on the retention scores of the two groups revealed that the experimental group did significantly better than the control group with a mean difference of 7.32. This indicated that the treatment had some effect. The increased retention scores observed with cooperative learning method in mathematics is in support of some studies like Acer & Tarban (2007), and Johnson and Johnson (2000)

The mean differences in students' performance in Table 2 showed that the experimental group taught with the cooperative learning method performed significantly better than the control group. It therefore suggests that mathematics could be taught effectively using the cooperative learning method this support of work of Kundon & Tutoo (2001)

Recommendations and suggestions

Based on the findings of this study the following recommendations were made

1. Given the effectiveness of Cooperative learning method teachers should be encouraged to use it in teaching mathematics at the secondary school level while a study could be conducted to find out its effectiveness at primary and tertiary levels of education.
2. Mathematics teachers in training institutions should be taught on how to use the cooperative learning method while there should be in-service training and workshops for teachers on cooperative learning method.

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The Effective of Using Web board to Enhance the Ethics and Knowledge Construction of Undergraduate Students of Ramkamhaeng University



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Abstract

This research was to investigate the use of web board for enhancing the ethic and knowledge construction of undergraduate students of Ramkamhaeng University. The 35 samples were purposive sampled from undergraduate students majoring in educational technology. Research instruments were web board via online learning, knowledge construction assessment form of Vander Meijdem' coding scheme. Statistic analysis used was percentage, means, and standard deviation.

The research findings were the samples could gain knowledge at the level of "high". The samples used web board for enhancing and reflecting oneself ethics in every activity. Activity of knowing each other founded 100 % cooperation. The best three pros were hospitability and helpfulness, honesty, and gratefulness. The three cons were irresponsibility, absence, and delay submission, hot temperedness, and luxury. Analyzing for improvement were eightfold noble path, five precepts and dharma. Showing vision used a modernized person, eager to learn new things and self developed person. Reflecting the ethic action as making merit at the temple, helping social, and photos of gratefulness to the parents, teachers. Identifying the ethic project were to be responsible in earning more new knowledge and innovation, be polite in manner and characteristic, and obey in teachers, self honest and others, patient to obstruction and the students identify the ethics of educational technologist to be honest and hold fast to moral, responsible, punctual and love the institute, behave to institute in good way such as good personality, appearance, and trustable. Presenting the ethic project were the volunteer camp, summer ethic camp, library development project and book donation, and Dharma against drugs project. In addition, the frequency of using web board was "Reflecting the ethic action", "Knowing each other", and "Checking pros and con".

Keywords: Web board, Ethics, Knowledge Construction

Introduction

Ramkamhaeng University has a determination to develop the university for a knowledge market, hope to produce the qualified graduates with knowledge and ethics, and responsible to

social with mind conscious. The philosophy of enhancing the equality in education, produce the graduates of knowledge and ethics, the students can participate the class or self – learning. The instructional management of a course; Ethics for Educational Technologist, ECT2901 of the faculty of Education, Ramkamhaeng University, beside the knowledge according to the curriculum, it is necessary to enhance the students to have ethics by watching the students' behavior and use it for evaluation. The students who registered the course of Ethics for Educational Technologist, ECT2901 could not participate the class in the university, so the researcher designed the instruction to use technology for solving the problem in participating the class and sharing knowledge among the students by using web board via the internet to reflect the behavior and sharing the knowledge. The development of technology and communication are faster and capable to access anytime, anywhere via the network. The web board or discussion board – chatting can be applied to use for communication, express the idea, discuss among the students or with teacher, and technology is also to reflect the behavior of the students in inquiring the knowledge, summarize the knowledge by using learning management system as a base for knowledge asset and statistics of the instruction. Manee Chaiteeranuwatanasiri (2004) mentioned the higher education that the instructional method is not enough variety. The instruction cannot response the students' need, not flexible, no integration, cannot apply in real life and do not progress toward the world change. The instruction lacks of thinking process of development and knowledge construction. The knowledge is still delivered by teachers. The role of the teachers is to teach and solve problem in the class. The study of instruction use in any level reflected the quality of Thailand educational system by reflecting that the learners only receive knowledge and lack of communication, team learning, and solving problem skill.

As mentioned, the instruction design should be considered and let the students to learn, analyze to gain new technique for applying in real life of the students. The instruction should have a goal to develop oneself by creating the thinking process to the learners. The promotion on cooperative learning and changing the teachers' role to the facilitator would stimulate the learners to learn toward their interest and skill. Those of techniques used in the instruction will help the learners to think, self reliant, dare to make decision, and have problem-solving skill. Those of techniques mentioned are able to develop the individual progression. (Wichai, 1999) The instruction process should focus on learning how to learn and reflection using reflective thinking to consider anything carefully. The way of reflective thinking will help the students to review and reflective practice from their experience to improve themselves, improve their work and solve the problem effectively.)Johns, (2000

The researcher realized the role of technology and communication to support the instructional management, to help learners in opportunity to gain the learning equality, and to access the knowledge, and do activities to develop the knowledge construction and realize the revision and reflection of the learners via web board using in the instruction for enhancing the ethics and knowledge construction as the researcher designed for the undergraduate students of Ramkamhaeng University.

Research objectives:

1. To study the effective of using web board for enhancing knowledge construction of undergraduate students of Ramkamhaeng University
2. To study the effective of using web board for enhancing ethics of undergraduate students of Ramkamhaeng University

Research Methodology:

1. Population and Samples:

1.1 Population was 45 undergraduate students of educational technology department, faculty of Education, Ramkamhaeng University who registered the course of “Ethics for Educational Technologist; ECT2901 in academic year 2011.

1.2 Samples was 35 undergraduate students of educational technology department, faculty of Education, Ramkamhaeng University who registered the course of “Ethics for Educational Technologist; ECT2901 in summer course of academic year 2011, derived from purposive sampled.

2. Research Instruments:

2.1 The 10 contents of this research were from the course of “Ethics for Educational Technologist; ECT2901

2.2 Knowledge construction assessment form of Vander Meijdem’ coding scheme (N.A. Shukor, J. Harun and Z. Tasir, 2011; Meijden, 2005) used for investigating the knowledge construction of the samples in three dimension, six items.

Dimension 1 Cognitive

Dimension 2 Metacognition; controlling and evaluate one’s thought, individual’s ability to develop, to control and direct the intellectual and thinking process, realization in work and using strategy for accomplishment

Dimension 3 Social Vander Meijdem’ coding scheme assesses the knowledge construction in 6 items

- (1Cognitive: Asking Questions
- (2Cognitive: Asking Answer
- (3Cognitive: Give Information
- (4Affective
- (5Regulative
- (6Rest

Table 1: Description and meaning of knowledge construction form

Cognitive: Asking Questions	
CHV1	Question needs no explanation)facts or short/easy questions(
*CHV2	Questions needs explanation)comprehension or description)
CHVER	Confirmation proof or agreement
Cognitive: Giving Answers	
CHG1	Learners answer with no explanation
*CHG2	Learners answer by explaining the problem solving
Cognitive: Giving Information	
C11	Learners specify new idea but no knowledge extend
*C12	Learners specify new idea with knowledge extend
CIT	Learners refers to the prior data
CIE	Learners can evaluate, summarize, or conclude
ACCEPT-	Learners accept the other supporting with no idea
ACCEPT+	Learners accept the other supporting with adding some discussion
NACCEPT-	Learners do not accept the other supporting with no reason
NACCEPT+	Learners do not accept the other supporting with reason

Affective	
A	Positive, Medium, Negative Emotion that effect the other cooperation or task carefulness
Regulative	
RV	Plan, follow up and evaluate the task
RINS	Advice of teacher to learners
Rest	
AND	Notices that are not related to the task or other interaction
GREE	Congratulations to others

* Level of advanced knowledge construction

2.3 A model of activities KPCASRIP using for enhancing knowledge construction and ethics via web board consist of 1) knowing each other, 2) checking pros and con, 3) analyzing for improvement, 4) showing vision as the role, 5) reflecting the ethic action, 6) identifying the ethic project and 7) presenting the ethic project.

7 activities Enhance the Ethics and Knowledge Construction

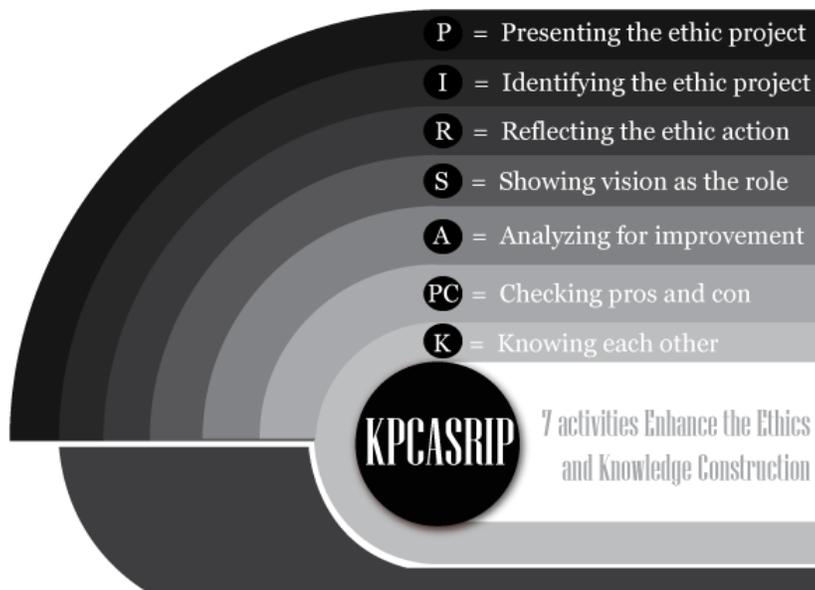


Figure 1 A model of activities - KPCASRIP using for enhancing knowledge construction and ethics

The description of activities' model - KPCASRIP

.1Knowing each other: learners identify oneself to friends and teacher to know each other by providing personal information, interest, and photo

.2Checking pros and con: learners evaluate their own positive and negative behavior and the correction

.3Analyzing for improvement: learners choose moral or ethic for improving oneself

.4Showing vision as the role: learners express the moral or ethics with educational technologist in the era 2012

.5Reflecting the ethic action: learners use photos to reflect the moral activity (3 photos for 1 activity)

.6Identifying the ethic project: group of learners identify moral and ethics of educational technologist

.7Presenting the ethic project: learners write a project for social development

3. Research procedure

The experimental phase of research was summer semester, academic year 2011 of the course “Ethics for Educational Technologist” ECT2901. The study lasted 8 weeks and each week took 2 hours. The total time was 16 hours. The students (samples) study the course and participated the web board activities’ model via a website <http://www.innolearn2day.com> during 14-30 May, 2012.

4. Research variables:

4.1 Dependent variable: The activities’ model - KPCASRIP on web board

4.2 Independent variables: knowledge construction and ethics behavior

5. Data Collection

The data of students’ participation using the model- KPCASRIP on web board was recorded and observed via a web board and evaluate the knowledge construction after the instruction was end.

6. Data Analysis:

6.1. Analyze the frequency and percentage of knowledge construction using the message posted via web board and consider the knowledge construction for learning evaluation)Schellens et al., (2008

6.2. Analyze the frequency of students’ participation on web board using percentage

Research Findings

The research finding of the effective of using web board to enhance the ethics and knowledge construction of undergraduate students of Ramkamhaeng University were as follow:

1. The findings on knowledge construction of Ramkamhaeng University’s undergraduate students

From the procedure of using web board to enhance knowledge construction were:

1.1 The 35 samples studied the content on the course “Ethics for Educational Technologist” ECT2901 by 10 contents for 8 weeks (2 hours a week – totally 16 hours)

1.2 The students search information, inquire and summarize for knowledge and reflect via the activities – KPCASRIP; 1) knowing each other, 2) checking pros and con, 3) analyzing for improvement, 4) showing vision as the role, 5) reflecting the ethic action, 6) identifying the ethic project and 7) presenting the ethic project.

1.3 The researcher use knowledge construction form of Van der Meijdem’s coding scheme to evaluate the knowledge construction in 6 items; 1) Cognitive: Asking Questions 2) Cognitive: Asking Answers 3) Cognitive: Give Information 4) Affective 5) Regulative 6) Rest

1.4 The researcher used data of knowledge summarization, reflection of knowledge and the students’ answers during the week and considered each message that reflect the knowledge (Rourke et al, 2001) The 465 messages were analyzed to percentage as follow:

Table 2: The students' knowledge construction analyzed from each message

	N	Percentage (%)
CHV1	0	0
*CHV2	0	0
CHVER	1	0.22
CHG1	23	4.95
*CHG2	85	18.28
C11	22	4.73
*C12	67	14.40
CIT	2	0.43
CIE	37	7.96
ACCEPT-	4	0.86
*ACCEPT+	0	0
NACCEPT-	0	0
*NACCEPT+	0	0
A	120	25.80
RV	3	0.65
RINS	56	12.04
AND	35	7.53
GREE	10	2.15
Total	465	100

*the advanced knowledge construction

From table 2, the knowledge constructions of the samples are considered the meaningful of knowledge reflection. (Rourke et.al, 2001) The finding on cognitive: asking questions, the learners of confirmation proof or agreement (CHVER) was at 0.22 %, on cognitive: giving answers, the learners who answer with no explanation (CHG1) was at 4.95 %, and answer by explaining the problem solving (CHG2) was at 18.28 %. On cognitive: giving information, the learners who specify new idea but no knowledge extend (C11) was at 4.73 %, and the learners who specify new idea with knowledge extend (C12) was at 14.40 %. For the learners refers to the prior data (CIT) was at 0.43 %, learners who can evaluate, summarize, or conclude (CIE) was at 7.96 %. On affective, learners of positive, medium, negative emotion that effect the other cooperation or task carefulness (A) was at 25.80%. On regulative, learner who plan, follow up and evaluate the task (RV) was at 0.65 %, learners who use advice of teacher to learners (RINS) was at 12.04 %. For the rest, learners who notice that are not related to the task or other interaction (AND) was at 7.53 %, and learners who congratulate to others (GREE) was at 2.15 %

Table 3: The data analysis of samples' knowledge construction

	N	Percentage%
High-Level elaboration	152	32.69*
Low-Level elaboration	89	19.14
Affective contributions	120	25.80
Regulative contributions	59	12.69
Non Task related	45	9.68
Total	465	100

*The samples can construct advanced knowledge)High-Level elaboration(

From table 3, the effective of knowledge construction analyzed from the level of knowledge construction found that high-level elaboration was at 32.69 % and low-level elaboration was at 19.14 %. The affective contributions were at 25.80 %, the regulative contributions were at 12.69 % and the non task related was at 9.68 %.

2. The effective of Ramkamhaeng University's undergraduate students analyzed from students' behavior reflected from the web board via activities' model - KPCASRIP were as follow:

2.1 Knowing each other: the students introduce him/herself to friends to know each other at 100 %.

2.2 Checking pros and con: to check negative and positive of their own behavior, the students identified 3 positive ethics; hospitable, helpful at 25.71 %, honest at 22.86 %, and grateful at 17.14 %. The 3 negative behavior that should be improved were irresponsible, absent, and delay submission was at 31.43%, hot tempered was at 20.00 % and luxury was at 17.14 %.

2.3 Analyzing for improvement: The students chose 3 ethics to develop themselves by eightfold noble path at 25.71 %), the five precept at 22.86 %, and five precept and five dharma at 11.14 %.

2.4 Showing vision as the role: the students identify the role of educational technologist in 2012 era should 1) be a modernized person, eager to learn new things, and self developed person, 2) be creative, and have lateral thinking and 3) analyze, design, plan and produce instructional media for users. In addition, they should have the ethics and moral of educational technologist.

2.5 Reflecting the ethic action: most students want to use photos for reflecting the ethics; the first is religious activities such as making merit at the temple (38.09 %), activity of helping social such as helping the foundation, volunteer camp, or teaching (20.95 %), and photos of gratefulness to the parents, teachers. (12.38 %)

2.6 Identifying the ethic project: the students identified that the educational technologist should be responsible in earning more new knowledge and innovation, polite in manner and characteristic, and obey in teachers, self honest and others, patient to obstruction and the students identify the ethics of educational technologist to be honest and hold fast to moral, responsible, punctual and love the institute, behave to institute in good way such as good personality, appearance, and trustable.

2.7 Presenting the ethic project: the students hold the volunteer camp, summer ethic camp (25.71 %), library development project and book donation (22.86 %), and Dharma against drugs project. (20.00 %)

In addition, the statistic of using web board in any activity during 14 April – 30 May, 2012 found that the most activity was “Reflecting the ethic action” (41.22 %), “Knowing each other” (13.18 %), and “Checking pros and con” (10.90 %)

Summarization and Discussion

The effective of using web board for enhancing ethics and knowledge construction of

undergraduate students of Ramkamhaeng University can be summarized as follow:

1. Seven learning activities' Model - KPCASRIP on web board enables to enhance students' ethics. Behaviors of submission, answering the questions, reflecting knowledge, and ethic photos reflection found that 100% of the students participated all activities. The students realized their positive and negative behavior and found the way to improve themselves using basic ethics. This finding harmonized with the research of Panit Yenkhae (2001) that found CIPPA Model can be used for students' ethic development. The 8 steps of ethic development were 1) Survey the prior knowledge and behavior to check pros and con, 2) Construct learning process of ethics by behavior adaptation, 3) Summarize and create new idea for practicing, 4) Practice, 5) Share knowledge and experience to check the accomplishment and improve, 6) Present the products and process of learning, 7) Application – using ethic project to benefit him/herself and social, 8) Evaluate oneself. Furthermore, the findings also harmonized to Wilson and Wing - Jan ((1993 that mentioned the way of idea reflection and to know ones' thinking. Teachers should provide activity of lesson learned record, concept map writing, asking questions, learn to choose, and make decision on his/her learning, and self evaluation. The meditation or consideration is the center of learning process for students and teacher. A development of learning process will enhance the self learning. Smith & McGregor ((1992 also support the idea of cooperative learning that students can use the view or experience of others by using group process and learn from the social and cultural environment by chatting with friends. The learning activities via web board is one of learning environment provided for increasing students' competency to access the content, to communicate and share knowledge among learners (Alstete, 2001)

2. Learning activities' Model - KPCASRIP on web board enables to enhance the high-level elaboration at 32.69 %. The students of Ramkamhaeng University can or cannot attend the class (individual learning), so the students have to be responsible and self-direct and also use web board as a tool for learning. The students use web board to reflect the idea, knowledge of his/her own view. The students can answer the questions by describing the way of problem-solving at 18.28 % and the students can identify the new idea and extend that knowledge at 14.40 %. This might cause identify the high-level elaboration. In addition, learning activities' Model - KPCASRIP form the expert was at the level of “most” $\bar{x} = 4.80$, S.D. = (0.13 can stimulate the students to reflect the opinion, support the interesting task of learning, provide the learning achievement, and use the appropriate technology to develop the learning process in term of knowledge construction.)Sumalee, 2004; Sayamon, 2010(

Research Application:

1. This research develops the quality of Education in Thailand by reforming Thailand society of Education System. The instructional design can enhance ethics of the individualized students, role and duty, equality, and democratic way of life. The finding of the research identified the realization of the students in individual ethics and continuing improving their ethics. Learning activities' Model - KPCASRIP can enhance the knowledge construction in high-level elaboration by studying and ensure to construct new knowledge and reflect the ethical behavior of learners.

2. Learning activities' Model - KPCASRIP can be applied in web board using in other field of study that enhance ethics and knowledge construction. The further research should also be done in other level of study.

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Don't count on the quality of children's counting books



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Abstract

Children's literature books, more specifically, early counting books, can be an engaging means for exploring numeracy with young children. Although there is general consensus in the current literature supporting the integration of high-quality children's books to teach mathematics; a user-friendly instrument to guide the evaluation of early counting books does not exist. Consequently, I created an instrument to encourage teachers to think more critically about the quality of early counting books utilized to teach mathematics.

The methodology for creating the instrument framework was founded on an extensive literature review and previously developed instruments. The instrument was tested and validated by multiple reviewers, including evaluations by expert in the field (i.e., math consultants, mathematics and Language Arts faculty, education librarians, practicing elementary teachers).

The purpose of this paper is to introduce the instrument; provide an overview of its development and design, including themes to emerge from the literature which form the foundation for the instrument; describe the categories and corresponding prompts on the instrument; and illustrate how the instrument is used to evaluate the quality of well-known counting books commonly used in elementary mathematics classrooms.

Given the inconsistent quality of early counting books on the market, it is vital that teachers become critical consumers of the literature utilized for teaching elementary mathematics. As such, developing a research-based instrument that has been tested and validated is an important initial step for providing teachers with a user-friendly resource for critiquing children's books.

Key words: Elementary teacher education, early counting, numeracy – literacy connections, children's literature

Introduction

Pre-service teachers will teach in ways they experienced as students unless their assumptions are overtly challenged (Lortie, 1975) or they experience alternative teaching strategies from a learners' perspective. As such, we cannot expect teachers to know how to teach math differently if they have not experienced learning it differently. This is particularly

important for pre-service elementary mathematics teachers who may lack sufficient content knowledge and suffer from high levels of mathematics anxiety; thus, not recognize the important mathematical understandings their students are discovering. In an effort to address these issues, I engage elementary pre-service teachers through introducing and integrating children's literature in my *Mathematics Curriculum Methods* course.

Although current research supports the integration of high-quality children's books to teach mathematics; there exists no comprehensive instrument to guide elementary teachers' evaluation of children's books. As a result, I created two instruments to encourage reflection and challenge teachers to think more critically about the children's books they are sharing. For the purposes of this paper, I present one of the two instruments, specifically, the instrument focused on engaging young learners as they explore early counting concepts.

This paper will describe the development of the instruments beginning with an overview of the current literature related to this topic, and then outlining themes to emerge from the literature review which formed the foundation for the instrument. The paper then describes the specific components the instrument as they emerged from the review of the literature. The paper concludes with examples of how the instrument is used to evaluate the quality of well-known counting books commonly used in elementary mathematics classrooms.

Theoretical Framework

Since the *Curriculum and Evaluation Standards for School Mathematics* (National Council for Teachers of Mathematics (NCTM), 1989) advocated integrating children's literature and mathematics, numerous teacher resource books and annotated bibliographies have been published on this topic (Burns, 1992; Thiessen, 2004; Thiessen, Matthias, & Smith, 1998; Ward, 2009, 2007; Whitin & Whitin, 2004), as well various professional and academic journals have included articles attesting to the value of this integration in elementary (Duocolon, 2000; Seray-Moyer, 2000; Shih & Giorgis, 2004) and middle school (Draper, 2002; Zambo, 2005). As such, fourteen years after the publication of the *Standards*, educators generally agree that high-quality children's literature can provide a real-world context for exploring mathematics (NCTM, 2000; Shih & Giorgis, 2004; Young, 2001), nurture more positive mathematics dispositions (Mink & Fraser, 2006; Whitin & Whitin, 2004), and offer teaching strategies that encourage problem solving, reasoning and communication (Duocolon, 2000; Hellwig, Monroe & Jacobs, 2000; Moyer, 2000; Roth-McDuffie & Young, 2003).

Although research highlights the potential benefits of integrating literature as a strategy for teaching mathematics; the benefits can only be realized if the quality of the books utilized is sufficiently high. Yet, most teacher resource books and published journal articles focus on *how to use* children's books to teach mathematics rather than *how to assess the quality* of these books. Regrettably, many popular early counting books are of questionable quality and some are, essentially advertisements for popular candies, such as *The Gummy Candy Counting Book* (Hutchings & Hutchings, 1997) or *The M&M Counting Book* (McGrath, 1994). Moreover, some authors of early counting books have published series of books focused the same mathematics concept, such as the series of *Five Little Monkeys* books (Christelow, 1989, 1999, 2000, 2004).

Consequently, given the inconstant quality of available literature, it is vital that teachers become critical consumers of the children's books available for teaching mathematics. To do so, teachers need to review and critically examine math related children's books with consideration

for both the literacy and numeracy quality. Moreover it is essential that teachers provide opportunities for young children to develop an awareness of numbers that goes beyond basic counting and number recognition. We need to provide children with opportunities to explore numbers, see them in different contexts, and relate to them beyond the classroom. Children's literature can provide the venue for such explorations.

Methodology

The *Early Counting* instrument evolved over the eleven years I have taught Mathematics Curriculum Methods in a Bachelor of Education program. During this time, pre-service teachers were required to create a mathematics lesson plan that integrated children's literature. To support my students, I developed a database of approximately 1000 books that could be used in elementary math classrooms, as well as an online resource for sharing math – literature lesson plans (<http://education.uoit.ca/words2numbers/>). In spite of my efforts, many pre-service teachers created lesson plans based on poor-quality children's books. As such, I developed a framework for selecting high-quality early counting picture books. The *Early Counting* instrument was developed over time, founded on numerous literature sources and validated by multiple users, including: Mathematics and Language Arts Faculty of Education members, education librarians, math consultants, local K-8 mathematics teachers, and pre-service elementary teacher candidates.

The foundation for the instrument evolved from three specific sources: (i) grade level curriculum expectations from the *Ontario Mathematics Curriculum, Grades 1-8* (Ontario Ministry of Education, 2005); (ii) research specific to the conceptual development of early number sense, including instructional strategies that best support this development (Cain & Faulkner, 2012; Clements, 1999; Clements & Sarama, 2009; Kilpatrick, Swafford & Findell, 2001; Small, McDougall, Ross & Ben Jaafar, 2006; Small, 2005) and (iii) previously developed criteria used for assessing the quality of children's literature books (Halsey, 2005; Hefflin & Barksdale-Ladd, 2001; Hellwig, Monroe & Jacobs, 2000; Hunsader, 2004; Schiro, 1997).

Results

Conceptual development of early number sense

Research specific to the conceptual development of early number sense is extensive, has evolved over time and is grounded in the formative work of Piaget (1968) and Mehler and Bever (1967). For the purposes of this paper, I have summarized the fundamental tenets to emerge from the research that guided the development of the *Early Counting* instrument. Specifically, research asserts that to engage children in developing their number sense, counting activities should be situated in a meaningful, everyday context; provide opportunities to begin counting from different starting points, including counting backwards; and each count should be associated with a symbol and/or a quantity.

In addition to these tenets, the categories and corresponding prompts on the *Early Counting* instrument integrate essential counting principles which characterize conceptual understanding of quantity beyond recitation of a number sequence. Specifically, high-quality early counting picture book should include opportunities for children to explore the following counting principles:

- *Conservation of number* (i.e., the number of objects in a group stays the same regardless of whether they are spread out or close together);
- *One-to-one correspondence* (i.e., each object counted must be given one count and only one count);
- *Abstraction* (i.e., the size of the object counted does not change the quantity);
- *Cardinality* (i.e., the last number counted in a group represents the quantity of objects in that group);
- *Movement is magnitude* (i.e., as you move up the counting sequence, the quantity increases and as you move down or backwards, the quantity decreases); and
- *Subitizing* (i.e., instantly recognizing the quantity of a small set based on its pattern arrangement, as in the dots on a dice).

Previously developed evaluation criteria

Despite of an extensive review of the literature, I was unable to locate research specific to assessing the quality of early counting books. Moreover, research specific to assessing the quality of math – literature books is scarce (Hellwig, Monroe & Jacobs, 2000; Whitin & Whitin, 2004; Schiro, 1997), largely grounded on adopting the criteria previously established by Schiro (1997) (Halsey, 2005; Hunsader, 2004), or of poor quality, unsupported by research (Grover, Monroe & Jacobs, 2007).

Although the *Early Counting* instrument is unique, I integrated aspects of three previously established instruments as the foundation for this instrument’s framework: Schiro (1997), and Hunsader (2007) and Hellwig et al. (2000). More specifically, I adopted components of Schiro’s instrument, as the 11 criteria consider both literacy and numeracy quality. For example, Schiro’s evaluation the mathematics quality includes, but is not limited to, consideration for accuracy, effectiveness of the presentation, developmental appropriateness, integration of the mathematics in the storyline, and involvement of the reader. I also considered the evaluation instrument developed by Hellwig et al. as a foundation resource. This abbreviated instrument included five evaluation criteria: accuracy, visual and verbal appeal, connections, audience, and the ‘wow’ factor. Finally, Hunsader’s instrument is an abridged version of Schiro’s instrument which includes six of the eleven original mathematics criteria. This instrument provided the impetus for creating the Likert scale on the *Early Counting* instrument. The Likert scale, although largely subjective, provides teachers with a means to compare two or more books against a standardized set of criteria.

The current research served as the framework for the development of the *Early Counting* instrument and contributed to the three sub-categories on the instrument: *Early Counting Criteria*, *Illustration of Counting Objects* and *General Appeal*. Each of the three sub-categories is outlined in the subsequent section with specific reference to how the instrument is used to evaluate the quality of two early counting books commonly used in elementary mathematics classrooms.

Discussion

If teachers are to integrate high-quality children’s counting books into their teaching practice, they need to develop skills for assessing and selecting appropriate literature. Given the limitations of teachers’ time, the *Early Counting* instrument is purposefully brief with thirteen

prompts subdivided into three broad evaluation categories: *Early Counting Criteria*, *Illustration of Counting Objects* and *General Appeal* (Table 1).

Early Counting Criteria:
The book explores counting beyond 1 to 10.
The book includes multiple representations of quantity, including: numerals, words, and illustrations.
The book includes opportunities to count forward and backward.
The counting concepts can be adopted for a range of abilities.
The book explores zero as a null set or as a multiplier (e.g. skip counting by ten)
Illustration of Counting Objects:
The objects are not crowded or partially illustrated.
The objects are clearly distinguished from the background.
The objects are illustrated in groups to encourage counting in sets, skip counting or subitizing.
General Appeal:
The book invites problem solving, communication or exploration
The book invites integration with other subjects and/or real-life situation
I want to re-read the book. It has <i>Wow Factor</i> .
The book is inclusive and devoid of stereotypes (e.g., gender, cultural).
The book engages young readers.

Table 1. Criteria for evaluating early counting picture books.

Upon completing the checklist, the reviewers are prompted to consider their responses within each category based on the following questions: Does the book have merit based on the *Early Counting* criteria? Does the book have merit based on the *Illustrations* criteria? Does the book have sufficient *General Appeal*?

Sample Evaluation: *Five Little Monkeys Jumping on the Bed*

Five Little Monkeys Jumping on the Bed (Christelow, 1989) is a commonly used early counting book and is a familiar chant often heard in Pre-school and Kindergarten classrooms. Although this book, and the three others in this series, regularly find their way into mathematics lessons; based on the *Early Counting* criteria, it is not an appropriate choice. Specifically, the book does not provide any opportunity for exploring four of the five *Early Counting Criteria*. Moreover, it provides only limited opportunities “to count backward” (i.e., from five to one). By contrast, the book has some merit based on the *Illustration of Counting Objects* sub-category. In particular, the counting objects (i.e., monkeys), in general, are not crowded on the page, are clearly visible and distinguished from the background. However, the objects are not illustrated to encourage counting of sets or subitizing. Finally, although I would score this book low on all criteria in the *General Appeal* sub-category, except “devoid of any stereotypes”; other elementary teachers may disagree based on the popularity of the book series. More specifically, because the book series is widely recognized by students, it may “engage young readers” and the teacher may frequently “re-read the book”. Moreover, although the story offers limited

opportunities for problem solving; many children understand the appeal of jumping on the bed, as such the book integrates “with real-world situations”.

Sample Evaluation: *Ten Flashing Fireflies*

Although *Ten Flashing Fireflies* (Sturges, 1999) is not a commonly used early counting book; it is a high-quality book with strong merit in all three sub-categories of the *Early Counting* instrument. This beautifully illustrated book flawlessly integrates mathematics with the storyline while providing multiple opportunities for students to explore number quantities and develop their sense of part-whole relationships. Although the book does not explore “counting beyond 10”; it addresses all remaining criteria in each sub-category. Of particular significance is the simultaneous illustration and exploration of counting forward, counting backward and representing part-whole relationships. These concepts are introduced and illustrated as the reader follows the adventures of a young boy and girl as they explore the night catching fireflies. With each turn of a page the book illustrates ten fireflies, some in a jar and the remainder in the night sky. Consequently, the story provides multiple opportunities for exploring, the conservation of number, subitizing and part-whole relationships (i.e., $8+2 = 7+3 = 10$). However, the book extends these mathematical relationships by consistently illustrating the increasing number of fireflies in the jar on the facing page of the book (i.e., illustrating counting up to 10); while simultaneously illustrating the decreasing number of fireflies in the sky on the opposite page (i.e., illustrating counting down from 10 to 0). This pattern is reinforced by the rhyming text. The story begins,

*What do we see in the summer night? Ten flashing fireflies burning bright!
Catch the one twinkling there. Like a star.*

Continuing on the next facing page (one firefly illustrated in the jar),
One flashing firefly in our jar.

With the opposite page (nine flying fireflies illustrated)
*What do we see in the summer night? Nine flashing fireflies burning bright!
Capture another one. Now there are ...*

Beyond the strengths of the book specific to the sub-categories of *Early Counting Criteria* and the *Illustration of Counting Objects*, it is not surprising that the book also has strong merit in the *General Appeal* sub-category. In particular, the book’s beautiful illustrations and predictive rhyming text “engage young readers” and encourage them to read aloud with the teacher. Given the integration of multiple early counting principles, this book “invites problem solving, communication and exploration”. This is a book with *Wow Factor* that summonses students and teachers to repeatedly read it, for both the quality of the mathematics and the quality of the literature.

Conclusions

A high-quality math-literature book should also be a high-quality children’s literature book. Although selecting and using quality literature to teach Language Arts is common practice for most elementary teachers; these skills do not seem to transfer to the selection and use of quality mathematics literature.

We cannot expect teachers to know how to integrate literature into their mathematics practice unless they are provided with opportunities to explore this as a viable teaching strategy.

It is for this reason that teacher educators and professional development providers should engage pre-service and in-service elementary teachers as mathematical problem solvers by integrating literature into coursework and professional development activities. Beyond modeling the math – literature connection, of equal importance is supporting the development of teachers’ appraisal skills for assessing and selecting appropriate children’s literature. In order to do so, teachers require time and opportunities to select, read, and analyze children’s literature for teaching mathematics. The *Early Counting* instrument is one tool that can be used to guide teachers’ critiques of the children’s books and stimulate critical reflection. Through repeated exposure to varying qualities of literature and considering the characteristics of high-quality literature, teachers become more critical, well-informed consumers of children’s literature for teaching mathematics.

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Artificial Intelligence as a Tool for Educational System Development in Nigeria

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Abstract

Education is the key to modernization. The main aim of education is to bring the all –round development of the students. That is the physical, mental, intellectual, emotional and social development of the students. Introducing Artificial intelligence as a tool for educational system development, which is the key to solution for human intelligence and knowledge created, copied and stored can be used for educational system development. The application of AI with an intelligent program will solves some problem in educational system because the knowledge created serves as instructional materials for teaching and leaving process. But human being finds it difficult to swallow their pride and admit that machine created by man can be as intelligent. If not more intelligent than man, the creator when put into action.

Keywords: AI, an intelligent program, expert system, knowledge base, Inference Engine

Introduction

Until very recently AI was thought of as being for elite or lunatics in Computer science. But things have now drastically changed. The reason that have influence the changes are the success of expert system which were the first truly financially successful AI products. The Widely published Japanese commitment to AI. The slow but steady incorporation of AI techniques to existing applications. AI time has come. The Central Goals of Artificial Intelligent, this includes to make computers more useful. To understand the make Intelligence possible. Artificial Intelligent (AI) as a study of ideas that enable computer to be intelligent. An intelligent program is one that exhibit human like intelligent behavior similar to that of a human when confronted with a similar problem. It is not necessary that the program actually solves or attempt to solve the same way that a human would. Expert systems are program that mimic the behavior of a human expert. They use information that the user supplies to render an opinion on a certain subject. The expert systems ask you questions until it can identify an object that matches your answers. Experts are generally useful, practical programs that fulfill an actual need. They are achievable. The knowledge Base is a data that holds specific information and rules about a certain subject. The Inference Engine, the inference engine is that part of the expert system that attempts to use the information that you supply to find an object that matches.

Concept Of An Intelligent Computer

The concept of an intelligent computer implies that computer is executing an intelligent program exist. Does a thinking computer exist? Put in another way, can a computer think? There is a lot of controversy on these questions.

The greatest problem lies on the definition of intelligent. One dictionary defines it as “the capacity to apprehend facts and prepositions and their relation and to reason about them” this leads to the question “what does reason mean?” in this context. It means to think- which is where the trouble starts. The greatest problem is that people do not understand how they think it might not be such a big job to make computer also think. In fact, if the database’s manipulation o information- the act of searching, sorting , query processing, filling and like- can be called reasoning. One must say that the database is an intelligent program. Recall that most computer programs manipulate information in reasonable, logical ways. Therefore, this reasoning must qualify as intelligence. According to professor Edward Feigebaum of Standford University, an Expert system is An intelligent computer program that uses knowledge and inference procedure to solve problems that are difficult enough to require significant human expertise for their solution. Knowledge necessary to perform at such a level, plus the inference procedure used, can be thought of as a model of the expertise of the best practitioners of the field.

Application Area For Intelligent Computer

Intelligent computer can find application in many areas. These may be in following areas.

In Business

Computer should suggest financial strategies and give marketing advice. They should schedule people and groups, refer problems to the right people summarize news, and polish draft documents freeing them of grammatical errors.

In Engineering

Computer should check design rules recall relevant precedent designs, offer suggestions and other wise help create new products.

In Manufacturing

Computer should do the dangerous and boring assembly, inspection and maintenance jobs.

In Farming

Computer should controls, pest, prune trees and selectively harvest crops.

In Mining

Computer should work where conditions are too dangerous for people and they should recover the manganese modules from the bottom of the sea.

In Schools

Computer should understand their student’s mistakes, just react to them. Computer should act as superbooks in which microprocessor display orbiting planets and play musical scores. Also as an instructor.

In Hospitals

Computer should help with Diagnosis, monitor patients’ condition, manage treatment and make beds.

In Households

Computer should give advice on cooking and shopping , cleaning floors mow the lawn, do the laundry and deal with maintenance. Some of these are already being done. Some will soon be done, and many more require a lot more work. However, all are possible.

Interest Groups

There are many who are interested in Artificial intelligent. They include
 The scientist who wants to develop a general theory of knowledge.
 The psychologist who perceives the problem of making intelligence in terms of explaining and understanding human intelligence.
 The Engineer who master the art of making intelligent systems of impressive performance, perhaps rivaling that of humans.

Benefit Of AI Expert System

Human Expert

1. Not available and not convenience
2. Has to sleep, eat, relax and take holidays
3. Limited number of human expert
4. The human expert dies taking the knowledge with it.
5. Permanent loose of the expert Knowledge Quite rare.
6. Is tired
7. The reliability of the expert advice may Suffer.
8. If you do not like the human expert You will be reluctant to utilize his expert knowledge
9. If an expert does not like your face he may not render liable information
10. It takes long period to become an expert In a certain field
11. It is difficult to acquire new human expert

Computerize Expert

- Available and convenience
- Available 24 hours a day, Everyday of the year
- desired number can be created
- Never dies.
- Knowledge in the expert can be copied and stored.
- Always at the peak Performance
- It will generate best opinion Possible
- Lack personality and does not descriminate against anybody
- It can neither love nor hate anybody.
- New ones are easily created
- it is easy to create from Existing expert.

How Educational System Is Developed Using AI

1. The knowledge created, copied and stored are used as instructional material, thereby used to develop the educational system
2. The knowledge created and designed and developed into computerized expert, which help in educational development such as in Geology, medical line, dendral in chemistry and x con for scheduling material and store control

3. An instructional materials, is anything that can be employed during the teaching -learning process which clarifies concepts and helps the learner to understand the concept better it provides a wide range of alternative avenues though which the same subject matter of an instruction can be presented to learners. Iwu (2002) stated that instructional materials are information carriers they are central and important in the process of teaching and learning.

Some Examples Of Expert System

the first set of commercially available Expert systems includes MYCIN,PROSPECTOR, DENDRAL and XCON

Mycin

MYCIN was the world's first successful expert system. It was developed at Stanford University, USA, in the mid 70's. it was designed to help physicians diagnose certain bacteria diseases. Diagnosis illness is essentially the task of comparing symptoms that the patient exhibits with symptoms of diseases until a match is found. It is usually difficult for a doctor to diagnose quickly and confidently all the many diseases that exist. Mycin satisfied this confirming the diagnosis.

Prospector

The PROSPECTOR was created in 1978 by Richard Duba, Peter Hard and Rene Reboh. It is expert system in Geology. It predicts that certain mineral deposit may be found in a particular region. Various include programs that can predict the discovery of oil, natural gas and helium.

Conclusion

Learning is a continuous process and is paramount change in behavior. The use of AI at all level of education especially at the secondary School level is very paramount. Teaching and learning process becomes much easier with the application of such material created, copied and stored. Including books. The field of AI which is expert system makes the teachers work to reduced because lessons can be packaged into VCD, CD and DVD for the learner use at any time. This enhances individual instruction.

Recommendation

Knowing fully well the important of expert system as a field in AI, to the educational sector in Nigeria and the benefits to the students. The program should be introduced at every level, because it has to do with the knowledge and inference procedure to solve problems that difficult enough to require significant human expertise for their solution. It serves as the best practitioners of any field. Base on it availability and convenience. Any number of the computerized expert can be easily copied and stored. The computerize expert lack personality and does not discriminate against anybody since it can neither love nor hate anybody. The expert system is always available 24hrs a day, every day in a year. It is at peak performance and will always generate best opinion possible.

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A Study of Sukhothai Technical College Students' Opinion in Applying Social Network Media in English Instruction



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Abstract

This survey research aimed to investigate the opinion of the students both in certificate and diploma level of Sukhothai Technical College. The population was 1,236 students of certificate and diploma students of Sukhothai Technical College. The 535 samples were simple randomized 535 to study in this research. Research tool was the survey form of students' opinion in using social networking media in English instruction. The data was statistically analyzed by means, standard deviation and t-test dependent.

The research findings were as follow:

- 1. The opinion of the students toward using social networking media in English instruction was at the level of "Most" ($\bar{x} = 4.30$, S.D. 0.4)*
- 2. The opinion of the certificate level students was not different from the diploma level students toward using social networking media in English instruction*

Keywords: Applying social network media, English instruction, students' opinion

Introduction

The Eleventh National Economic and Social Development Plan (2012-2016) and The Second Thailand Information and Communication Technology (ICT) Master Plan (2009-2013) harmoniously mentioned the application of information technology and communication system for supporting the knowledge management to people. The principle was to apply technology for people and response sharing knowledge behavior. On the other hand, technologies take important role in Education Management.

Social networking media takes more important roles in the organization. The personnel of organization such professors, students and staff apply the social network media like Facebook, Twitter, MySpace, Multiply, Ning, Youtube, Foursquare to communicate with the students. Youtube is used for promoting the students' activities, chatting or discussing via blog, or using mobile learning via iTunes U of Apple that is the learning asset. Those of slide presentation, documents, video clip, radio program, cinema program, podcast of distance learning course are also be the learning asset. On the other hand, social network media might be harmful to users.

They should also realize and responsible to their documents posted on online media of their own)Rujireka Witayawuthikool,(21-18 .

In Thailand, English instruction as a foreign language focuses on four main skills; speaking, listening, reading and writing. If there existed the Language Instructional Design by technology application in the foreign language instruction, social network media is one that can effectively be applied. For the nature of English language course is to develop the English skills which has to be continually practiced. The social network media is capable for communication such a knowledge presentation, sharing knowledge or discussion, chatting, posting or comment. The researcher aimed to study the opinion of Sukhothai Technical College students in applying the social network media in English language instruction by using social network media under the umbrella of blended learning.

Research questions

What is the opinion of Sukhothai Technical College's students toward the use of social network media in English language instruction?

Research objectives

To study the opinion of Sukhothai Technical College's students toward the use of social network media in English language instruction.

Research limitations

1. Scope of content

A study of Sukhothai Technical College students' opinion in applying social network media in English instruction considered the instrument on social media that can be applied in the online learning under the umbrella of blended learning. Blended learning uses both classroom and online learning. The questions of this study involved the students' opinion toward the possibility, appropriateness and acceptability of using social media in English instruction. The questionnaire uses five level rating scale of Likert.

2. Scope of time

A study of Sukhothai Technical College students' opinion in applying social network media in English instruction was between first semester of academic year 2012

Population and Samples

The population in this research were 1,778 students, 1,236 were certificate level students and 542 were diploma students.

The 535 students were randomly selected to be the sample in this research, 300 were certificate level students and 235 were diploma students.

Research Procedure

A questionnaire to survey students' opinion on applying social network media in English Instruction was developed by studying the procedure of developing a questionnaire using the Likert's rating scale, then developed a questionnaire which consisted of 20 questions related to the opinion of the students toward using social network media with English instruction.

Data collection from the subjects has done by asking permission from the director of the college to gather data from the students, then making appointment with 535 subjects to meet at the meeting room. At the meeting, the researcher informed the objectives of the research and let the subjects answer the questionnaire. Time duration for answering the questionnaire was about 30 minutes.

The answered questionnaires were collected and categorized by the level of study of the subjects, the certificate and the diploma level. The data was statistically analyzed by using the mean, standard deviation and t-test independent.

Data Analysis

Data analysis of students' opinion in applying social network media in English Instruction

The opinion of the student toward using social network media in English instruction. The result of opinion revealed as Table 1

Table 1 Student's opinion in applying social network media in English instruction

The list of study	\bar{x}	S.D.	Results
Possibility			
1. Any activity on social networking media can be used in English instruction	4.55	0.50	Most
2. Communication between teacher and students can be done via social networking media	4.25	0.43	Much
3. Chatting can be done in English instruction	4.32	0.47	Most
4. Posting on social network media can be used as a part of English instruction	4.22	0.42	Much
5. Photos, videos or message uploading can be applied in English instruction	4.34	0.47	Most
6. The lesson review can be done in social network media	4.21	0.47	Much
7. Knowledge sharing, knowledge discussion can be done on social network media	4.18	0.54	Much
8. English skill practice can be done on social network media	4.32	0.47	Most
9. Learning measurement and evaluation can be done on social network media	4.33	0.43	Most

The list of study	\bar{x}	S.D.	Results
10. Social network media can be used to reflect the lesson learned and skilled practiced	4.14	0.41	Much
Appropriateness			
11. Knowledge presentation or posting the lesson learned or English skill practiced by writing post once a week is appropriate	4.44	0.49	Most
12. "Write post" can vividly develop the way of writing skill	4.31	0.46	Most
13. Writing post of knowledge is used as note taking between studying	4.33	0.48	Most
14. "Comment" in social network media can be used for knowledge discussion and knowledge sharing	4.32	0.47	Most
15. "Comment" enables the learners to gain more knowledge	4.23	0.43	Much
16. "Write post" and "Comment" are related to each other	4.27	0.45	Much
17. "Write post" and "Comment" are benefit for knowledge construction and English skill development	4.36	0.49	Most
18. "Write post" and "Comment" should be used and applied in the classroom learning	4.47	0.54	Most
Acceptability			
19. "Write post" and "Comment" on social network media and English instruction are absolutely harmonized	4.32	0.48	Most
20. Any activity on social network media can help the students to learn English and can develop the English skills with funny	4.30	0.47	Most
Total	4.30	0.47	Most

From Table 1, the possibility, appropriateness and acceptability of using social media in English instruction toward the opinion of students are at the level of "most" ($\bar{x} = 4.30$, S.D. = 0.47). That means the students have the opinion that social network media can be applied to use for English instruction. In item consideration from the most, the students agreed that "any activity on social networking media can be used in English instruction" ($\bar{x} = 4.55$, S.D. = 0.50). The less is students' opinion on writing post and comment should be used and applied in the classroom learning" ($\bar{x} = 4.47$, S.D. = 0.54) and the students agreed that knowledge presentation or posting the lesson learned or English skill practiced by writing post once a week ($\bar{x} = 4.44$, S.D. = 0.49). The opinion from the least, the students agreed that social network

media can be used to reflect the lesson learned and skilled practiced ($\bar{x} = 4.14$, S.D. = 0.41). That means at the level of “much”.

The means difference analysis of students’ opinion between certificate and diploma students in applying social network media in English instruction

The t-test independent means difference analysis of students’ opinion in applying social network media in English instruction found as in Table 2.

Table 2 Means difference analysis of students’ opinion in applying social network media in English instruction between certificate and diploma students

Level of study	\bar{x}	S.D.	t
Certificate	4.30	0.48	0.00
Higher certificate (Diploma)	4.29	0.45	

p> .05

From Table 2, the certificate students and diploma students did not have significant difference in their opinion on applying social network media in English instruction. There were not different on the opinion of possibility, appropriateness and acceptability of using social media in English instruction.

Discussion

The data analysis on the students’ overall opinion in applying social network media in English instruction included the possibility, appropriateness and acceptability showed that the students had opinion at the level of “most” ($\bar{x} = 4.30$, S.D. = 0.47) This referred to the students agreed in applying social network media in English instruction. That’s because of the social network media were daily activities of the students. The students get familiar and realize to use social network media daily and applied in their studies. In English instruction, the students have to communicate by mainly use language. By the age of the students, the students often used information technology and internet in their daily life. The students can accept the social network media as a part of their studies harmonized with Rujareka Witayawuthikool (2008(that mentioned social network media is not only the fashion, using social network media will extend and further develop. The more using in organization, the more effective organization will gain. The organization can use social network media as a public relation, network community strength, and for knowledge sharing.

The data analysis of mean difference of students’ opinion in applying social network media in English instruction, using t-test independent, The mean scores of students’ opinion between the certificate and the diploma students are significantly not different. That means the students both certificate and diploma students agree that using social network media is possible, appropriate and acceptable for English instruction. This finding might because of the age of the students, the role of computer technology, internet, and social network media are lead to the consumers since the children to the adults in any society. So the level of study of the students does not influence to the opinion of the students.

Suggestion

1. The study of using social network media should be done and applied in other field of study.
2. The finding of the study should be considered in developing the learning activity in other field of study.

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The Role of Feedback in Scaffolding Learning: Reflections on the Intended and Unintended Effects of Student Feedback as a Basis for Learning Support

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Abstract

The goal of this study was to critically examine the effects of the feedback given to students by their lecturers and tutors as a basis of their learning support. The study was conducted with undergraduate students in an educational theory course in a South African university. The main thesis of the paper is that the messages lecturers and tutors transmit to their students about their strengths and weaknesses in learning attainment assume that the students will easily decode and turn them into action to improve their performance. Contrary to this view, students actively construct their own understanding of such feedback messages making the whole process of providing feedback to be complex or difficult to decipher. Through the use of a cross-sectional feedback survey utilizing focus group discussions with 50 second year Bachelor of Education pre-service students conveniently and systematically sampled from the university where we teach, the study thus explored the calibre of the feedback employed to assess and scaffold them from lower to higher cognitive functions with a special focus on academic essay writing. In analysing the data on the students' perceptions of feedback, the identified codes were categorised and clustered to develop the superordinate themes that were employed to structure the discussion of what the students expressed. The main finding of this study is that lecturers and tutors need to recognize that effective student support needs to be culturally responsive if it is to foster the development of students metacognitively and lead to improved academic performance. The conclusion drawn from the study is that unless lecturers and tutors provide support that is simply and clearly focused and thus meaningful, students are likely not to take much heed of it and their main concern will continue being the marks obtained whilst they leave the university as half-baked or under-prepared.

Keywords: Assessment-feedback

Introduction

Boud (2001), Laurillard (2002) Sadker (2005) and Yorke (2003) have argued that feedback is under-conceptualized in the literature on higher education. This makes it difficult for lecturers and tutors to design effective feedback practices or to evaluate their effectiveness. While there has been a move over the last decade to conceptualize learning from a constructivist perspective (Laurillard, 2002), approaches to feedback have, until recently, focused on simple transmission perspectives. However, as noted by Higgins, Hartley & Skelton (2001), feedback on

performance, when effective, is widely considered integral to learning because students learn faster and more deeply if they know what the strengths and weaknesses of their performances are. They become aware of how to improve on future performance. According to Boud (2001), one of the most valuable contributions any educator can make to students' learning is through the provision of constructive feedback. To do this, there is need to be conscious of the different approaches to feedback.

Approaches to feedback

Woodsmall (2000) asserts that giving critical feedback to change learning can be a delicate process that needs circumspection (see also Eikenberry, 2012). It is most effective when presented in a manner that ensures that the good news, which should be clear, specific, personal and honest come first and the bad news, which should be specific, constructive and kind follows and then an encouraging conclusion sums up the feedback. According to Eikenberry there is a complimentary technique to feedback that is more oriented towards softening or disguising required criticism. According to Hodges (2005) too, assessors need to refer to specific examples from the task or assignment that are worthy of praise and describe them. For example, 'Thulie, *in this paragraph you have clearly defined the concept of practice*. They should endeavour to point out at least one effective idea, argument, paragraph, sentence, phrase or word used (Garner, 2007). Undercutting praises by including a 'but' or suggestion for improvement in the same sentence can water down the good news (positive feedback) and should be avoided. The following is an example of how this can be done.

*'Busi, I thought the way you handled this was both valid and original.
I particularly like the way you...'*

In providing negative feedback, assessors need to be specific, make clear what they are reacting to, which word or idea is wrong and explain in what respects it is wrong or inappropriate. To be truly constructive, it is important to suggest how the work could be rewritten to be acceptable. There is also need to limit such feedback by not commenting on many issues. Black and William (2001), Dunn, Morgan et al., (2004), Pintrich, (2002), Reid and Harris (2005) have shown that where the classroom culture focuses on rewards, marks, grades or place-in-the-class ranking, students tend to look for the ways and means, ethically or otherwise to obtain the best marks rather than at the needs of their learning which these marks ought to reflect. Where they have a choice, they will avoid difficult tasks (Flavell and Wellman, 2007). They also spend time and energy looking for clues to the right answers. Some may be reluctant to ask questions for fear of failure. Students who encounter difficulties and poor results are often led to believe that they lack ability and this belief may lead them to attribute their difficulties to a defect in themselves about which they feel they cannot do much to improve (Yorke, 2003). As a result, they may retire hurt and avoid investing effort in seeking to improve their learning attainment. The research questions addressed by this study were thus e: what role does feedback play in the process of student assessment? And what feedback support is necessary to foster metacognition in students' learning? It is in this sense that the provision of effective feedback is considered a condition necessary for the development of their metacognitive abilities (Flavell 2003; Garner 2007; Nicol & Boyle, 2003).

Effective feedback as a condition necessary for metacognition in students

Boud (2001) and Hodges (2005) have argued that feedback fosters sound metacognitive skills in students' learning when it makes them think more clearly about concepts or processes in the work previously covered. By indicating factual errors, misconceptions and gaps in subject content, it supports the students' development and understanding of the course content (Hounsell, McCune, Hounsell and Litjens, 2008). Also providing information about specific academic writing conventions; indicating strengths and weaknesses and suggesting how tasks can be improved academic relationships between lecturers and students will be developed and drawn on to challenge students to excel and justify the marks awarded during assessment processes.

Methodology

Design: We adopted a cross-sectional feedback survey research design genre owing to its strengths in assessing thoughts, opinions and feelings (Babbie & Mouton, 2005) and used focus group discussions to respond to a set of structured but open ended questions concerning the feedback experiences received from lecturers and tutors as part of their learning support or assessments. We then used the responses to generate full explanations and further probe the participants for in-depth data (Hesse-Biber, 2010; Odimegwu, 2004).

Population and sample: A convenient and simple random sample was obtained from of 500 second year Bachelor of Education students in the faculty of Education of a university chosen as the site for the study (Maree 2010). By using class attendance registers as sampling frame we selected units systematically in multiples of 10 to yield a total sample size of 50 participants. It can thus be argued the study combined convenient and systematic random sampling techniques (Nieuwenhuis, 2010)

Ethical considerations and data Collection: In line with the ethical clearance research procedures (Babbie & Mouton 2005), we first sought and obtained permission to conduct the feedback survey from the university authorities. We also sought and obtained the participants' consent to take part in the study after informing them of the purpose of the study prior to conducting the focus group interviews. After assuring them of their right to voluntary participation, privacy, informed consent, confidentiality and that they were free to withdraw from the research without any penalty we began the focus group interviews using the funnel approach by starting with semi-structured questions to ease the participants into the discussion (Odimegwu, 2004). After asking the 50 participants to voluntarily categorize themselves into 5 focus groups of 10 members each, we interviewed each of group twice for one hour in two months to obtain conceptions and perceptions about the feedback received from lecturers and tutors. Prior to the interview sessions, participants were fully assured that the data gathered during the interview sessions would be treated with strict confidentiality.

Data management and analysis: Data analysis conducted thematically ensured that its clustering into superordinate themes made the discussion convenient (Nieuwenhuis, 2010). To do so we summarised the responses and complemented the summaries with excerpts from the students' feedback experiences, the use of a priori codes, inductive explanations and the views collected from the focus group interviews.

Research Data

The data obtained indicated that student considered feedback effective, if specific, given regularly, given on small chunks of work and focusing on learning rather than marks or on students themselves. It had to give attention to what students have done well, wrongly and what can be done to improve on performance in future.

Specificity and regularity of feedback

Students were of the view that feedback without grades had a more positive impact than marks. If s provided quickly enough it was e more useful than that which is belated. Immediate feedback at each stage of the student's progress through a course had a great potential to improve future performance. If not received soon enough, it became irrelevant. Immediate though imperfect feedback from a peer was more effective than higher quality feedback given by the lecturer or tutor weeks later. Maintaining motivation through student feedback was appreciated. This finding lent credence to Woodsmall's notion of the feedback sandwich as keeping the relationship of the educator and his students cordial throughout the learning processes. This was is important to monitor themselves and improve the quality of their future tasks.

Feedback to be understandable to students

Educators had to make feedback as unequivocal as possible for it to be effective in supporting their learning or scaffold it from lower to higher cognitive functions. Many students indicated that they had to understand what a successful attempt at a task implied. Lecturers and tutors had to demonstrate some evaluative expertise when giving feedback. They also needed to be well versed in the conventions of academic writing practices and expectations of the disciplines they operated in.

Familiarity with the conventions of academic writing and disciplinary expectations

The study established that the margins of students' written work were ideal sites for written feedback comments. Tutors/lecturers offered t useful feedback in the margins and end spaces in written work. This observation gave credence to Hodges' (2005:78) assertion that a clear relationship between in-text and summative end comments is important when giving student feedback. However, many students argued that there is need for them to be helped to engage with the given feedback because they at times found it difficult to decipher. It needed to be legibly positioned. Feedback that focuses too heavily on grammatical correctness, especially for essays riddled with language errors tended to demotivate the students' quest to improve as this often left them feeling inadequate or with a misguided sense that improvement in writing at the level of syntax, spelling and grammar is all that is required for a successful essay. The use of the red pen was cited as exacerbating the demoralization. The pencil discouraged them to heed the given feedback. Students also cited the language and tone used in giving student feedback as another demotivating factor if accompanied by comments such as, *'Incomplete', 'Confused!'* *'and 'Unconvincing were cited as some of the examples.*

Discussion

The provision of effective feedback fosters metacognitive skills in students. It is in this sense that Higgins, Hartley & Skelton (2001) see it as integral to learning. When expressed in a manner that softens or disguises required criticism, it provided good information about learning and the assessment practices. Assessment ensured that students and lecturers understood how the former

had developed from the lecturers they had presented. This was viewed as promoting self-regulated learning and limiting s undue dependence on their lecturers and tutors. en When explicitly linked to assessment tasks, learning outcomes and marking schemes, feedback functioned to create and maintain meaning for tutors, lecturers and students alike through a reinforcement of the purpose of assessment and how it related to learning outcomes.

All lecturers and tutors are seen by students as possessing some form of expert power and therefore carelessly worded or overly judgmental comments on assessments could easily damage the students' self-concept and confidence. Those with a low self-esteem interpreted negative feedback personally while constructive, well-written feedback contributed to positive self-esteem. In this way it facilitated self-assessment and encouraged dialogue around learning. The sandwich approach tended to enable them to be receptive to the advice. When the good news came first, students heeded all comments. The approach encouraged them to reflect on their work. Assessment should thus be seen as a way of mediating learning and the given feedback becomes a learning tool (Tudge, 1990; Wertsch, 2001). Assessment, as (Darling Hammond & Snyder, 2005) asserted provided opportunities to close the performance gap. Students were encouraged to want to bridge the knowledge gap between their prior knowledge and the new forms.

The positive motivational beliefs and self-esteem in students resulted from the importance that the students attached to their motivational beliefs and self-esteem. They tended to construct their own motivation on the basis of the assessment comments they received. This influenced their personal and academic goals and self-esteem and commitment to learning goals. Whilst positive feedback promoted mediated learning experiences (Kozulin, 2002; Vygotsky, 1987) and fostered effective metacognition in students, negative recording, interpreting and reporting failed to differentiate AfL and AoL. The potential for tutors and lecturers to influence performance was compromised and the students' motivational beliefs and self-esteem were affected adversely by focus on passing tests or examination rather than the actual learning. Those affected in this way resigned from seeking improvement. As Black and William (2001), Dunn, Morgan, O'Reilly and Parry (2004), Pintrich (2002), Reid and Harris (2005) have shown in their studies, some of the students in this study also avoided seeking to improve their learning.

Concluding remark

The data provided herein shows that effective feedback is considered a condition necessary for the development of metacognitive abilities (Nicol & Boyle, 2003) by students. Unless their tutors and lecturers strive and make conscious attempts to stray way from the deficit model that has been characteristic to assessment in South Africa, the drop-out rate in universities is unlikely to be reduced.

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Out of School Literacy Support Programmes in South Western Nigeria: Present Practices and Future Directions



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Abstract

Literacy in the traditional classroom revolved round reading, writing and arithmetic but the changes brought about by innovations in digital technology have shown that literacy is not static. It is continually changing and expanding to assume multiple meanings and dimensions. Today discussions about new literacies and multiliteracies are common phenomenon. The demands of the 21st century have made it imperative for students to be exposed to literacy opportunities that would build and strengthen their creative, innovative and technological skills. Thus, the study investigated the out of school literacy programmes provided by the school, the community, the government and the home to support literacy development; examined the relevance of these programmes, to the literacy needs of the 21st century learner. Attempt was also made to examine the connectedness of these programmes to the literacy taught in schools. The study adopted the survey and interview methods in the collection of data. Subjects of the study include 29 purposively selected School Administrators, Representatives of the state Zonal Education and Local Education Authorities and 218 junior secondary III students randomly selected from six local government areas, 3 each from Oyo and Ogun states respectively.. The results showed that much has not been done by schools, the community and the government to provide out of school literacy programmes to support literacy development. It is believed that the findings of this study would pave the way for the establishment of a comprehensive and well structured framework for future literacy practices in Nigeria.

Introduction

The question of literacy has taken multiple dimensions in this 21st century with increased global interest and debate among academics and social- political analysts \over what literacy is and

what it is not. Since the 1940s, UNESCO has taken significant steps to promote literacy by establishing and funding literacy programmes and services across the globe, especially in the developing countries of Africa with high illiteracy index (Otagburusgu 2007). There had been workshops, conferences and world assemblies of academics and other stakeholders, prominent in the 1980s and 1990s, to discuss and fashion out new frameworks in achieving Education for All, and the subsequent eradication of illiteracy in Africa and other parts of the world where illiteracy is a contributory factor of underdevelopment.

The African continent and Nigeria in particular have not achieved the expected breakthrough in every aspects of development because the greater percentages of their citizens are still living under the shackles of illiteracy. The consequences are huge, ranging from high poverty level, crime, ethnic squabbles, high dropout rates and other social vices. It is against this background that this study investigated the efforts made by Schools, States and Local government education authorities to provide out of school literacy programmes that would support and fortify students' developing literacy skills even when they are still going through formal schooling.

The Concept of Literacy

At the rudimental level, literacy simply implies 'ability to read, write and compute' in any language. When one cannot read and write, either in a foreign language or using the mother tongue, one is described as not being literate. According to Moje and Tysvaer (2010) literacy goes beyond its broad definition of reading and writing of written texts to include, listening, speaking and performing aspects of communication that help people make sense of the written text. The Ontario Ministry of Education's expert panel on literacy in the lower levels of education described literacy as 'the ability to use language and images in rich and varied forms, to read, write, listen, speak, view, represent and think critically about ideas' (Cummings 2007).

The new dimension of literacy goes beyond the basics of the traditional school based leaning encapsulated in the three Rs- reading, writing and arithmetic which produced compliant, passive learners who could not apply knowledge learned in different and new contexts (Kalantzis and Cope 2008). Literacy is a lifelong critical coping skill 'needed by students to enable them make appropriate meaning of their environment, reality and lives, as well as to become the best that they are capable of' (Obi-Okoye 1997:462). It is paramount for the basic literacy skills acquired in the school/classroom to be supplemented through further and consistent exposure of students to enriching literacy programmes outside the school system.

The current studies in multi-literacy ushered in by the New London Group (1996) emphasize the importance of creating learning environment that would give students the opportunity to engage in a wide range of literacy practices that are creative and cognitively challenging, such that brings together text based and multimedia forms of meaning making (Giampapa 2010). For instance, in this new communicative environment, learners encounter new vocabularies and spellings as they use e-mails, read texts that involve making complex relationships between visuals, space and text, encounter tens of thousands of words in supermarkets, around the screen, on the news, sports or business programme, on the television, ATM, websites built on visual icons, active hypertext links and the subtle relationships of images and texts in glossy magazines (Kalantzis and Cope 2008). With this scenario, literacy can be described not just as the ability to read, write and compute, but also the ability to use the skills of the new technology and apply the knowledge and skill acquired to solve individual and

community problems. This makes the knowledge of the traditional, linear and text-based literacy highly less appropriate and less adequate in a world that places emphasis on creativity, problem solving and the active contribution of every individual in the society. Therefore, For the Nigerian student, literacy means the ability to integrate the language skills acquired in school for enhanced academic achievement and social relevance outside the school system. Unfortunately, ‘most primary and secondary school students, and even those who have graduated out of school, often fail to achieve effective or pleasing level of literacy’(Obi-Okoye 1997, Offorma 2007).

In a workshop organized by UNESCO in 2012 in Abuja, Joseph Ngu, the director of UNESCO, noted that Nigeria is one of the African countries that will not achieve the Education for All (EFA) goals by 2015. Over a decade ago, Olaofe (1997) noted that though the range of literacy education is wide (quantitative), it lacks depth (qualitative) because funds, necessary manpower and infrastructure needed for qualitative literacy education are not just there. Similarly, Edukugho (2006; Offorma 2007; Kolawole 2008;) observed that the problem of literacy and reading in Nigeria ranged from low access to education, low quality and inadequate number of teachers, absence of basic infrastructures such as recreational facilities, classrooms, libraries, learning materials, inappropriate methods of teaching and lack of literacy teachers.

Out of School Literacy Programmes

The National Policy on Education (NPE 2004) refers to out of school education as the non-formal basic education for adults and youths outside the school system. However, it has been replaced with distance education whereby the teacher and learner are separated in time and space (Offorma 2007). For the purpose of this study, out of school literacy programme refer to literacy programmes and services provided for students outside the normal school hours (after school, weekend and holidays) to support their emerging literacy. Moje and Tysvaer (2010) noted that the essence of out of school literacy programme is to enhance students’ reading and writing abilities. The out of school time literacy movements engage young people in motivating and fun learning opportunities in the community, with increasing expectations to support participants’ academic achievement. The National Policy on Education (NPE 2004) states that the goal of primary education is to inculcate permanent literacy and numeracy, and ability to communicate effectively. With this, it is believed that a child who terminates his/her education, even at the basic education level (primary or junior secondary levels) would never relapse into illiteracy (Omojuwa 2005). Studies have shown that literacy attainment at both the primary and secondary school levels is low (Offorma 2007), and this results to high dropout rates (Moje and Tysvaer 2010) because literacy is conceived as school based; as reading and writing activities done within the confines of the school and the classroom.

Most literacy teachers and pupils in public primary schools in Nigeria lack knowledge of the best practices in literacy development; hence they are unable to apply literacy to get things done. For instance, children who graduate from primary school are not well prepared to meet the challenges of secondary education or societal demands for those who will not go beyond secondary school (Kolawole 2008). This implies that the form of literacy taught at this level of education is limited in terms of quality and quantity and this poses great challenges to education and national development.

Statement of the Problem

Researchers and Scholars of literacy are quite agreed on the low literacy level of students in Nigeria (Obi-Okoye 1997; Otagburuagu 2007; Offorma 2007; Kolawole 2008). Several factors have been found to influence effective literacy education such as poor conception of literacy, imbalance in access to literacy education, poor funding, lack of effective support programmes and services as well as attitudinal issues. Hence, most children and young adults leave school unable to apply literacy skills learnt to effectively solve their own personal and group/community problems. Previous studies have focused extensively on classroom attainments of literacy and material availability within the school setting (Omojuwa 2005; Offorma 2007), hence this study examined the out of school students' literacy programmes which enhance literacy development.

Research Questions

For the purpose of this study, the following research questions were raised:

- i) Are there out of school literacy programmes to support students' literacy development in South Western Nigeria?
- ii) To what extent is the home involved in students' literacy development?
- iii) To what extent is the community involved in students' out of school literacy?

Methodology

This study adopted a descriptive survey research design. The population of the study consisted of the Principals, Vice principals (Academics) and students of all the junior secondary schools in Abeokuta (Ogun) and Ibadan (Oyo). Purposive sampling technique was used to select three local government areas each from Abeokuta and Ibadan metropolis respectively; sixteen (16) Principals and Vice principals from the schools selected as well as thirteen (13) zonal education officers (ZOE) and local government education authority officers. Random sampling by balloting was used to select two schools from each of the local government areas and 20 junior secondary school III students from each of the selected schools. However, one of the schools was eventually dropped due to a high level of inconsistency in responding to the questionnaire while two (2) of the questionnaires were not returned. In all 218 students were selected for the study

The major instrument for the study was a structured questionnaire tagged 'out of school literacy support programme questionnaire' (OSLSPQ). OSLSPQ was in two sections, A and B. Section A focused on the bio-data of respondents while section B sought to elicit information from the respondents based on a simple yes/no categories and the data collected was analysed using frequency distribution counts and percentages.

Results and Discussion

Table 1: Frequency distribution counts of students' responses to Out of School Literacy Support Programmes.

S/N	Questionnaire items	Yes	No	undecided
1.	Reading and writing workshops are usually organized for students during the holidays	14 (6.42)	204 (93.58)	-
2.	The school invites known Writers to keep a date with students.	48 (22.02)	166 (76.14)	4 (1.84)
3.	The school organizes literacy days and volunteers come from the community to share ideas about books with us.	46 (21.10)	170 (77.98)	2 (0.92)
4.	There is a community library in my local government area where we go to read during weekends and holidays	14 (6.42)	204 (93.58)	-
5.	My school organizes coaching lessons for students during the holidays.	132 (60.55)	76 (34.86)	10 (4.59)
6.	Literacy weekends are organized when parents, students and the school gather to share ideas on books of interest.	30 (13.8)	188 (86.24)	-
7.	In my community, free ICT training is organized for students during weekends/ holidays	34 (15.60)	182 (83.48)	2 (0.92)
8.	At home, my parents provide opportunity for me to listen to literacy programmes on radio and television.	64 (29.36)	150 (68.80)	4 (1.84)
9.	My parents take time to read the same book and share the reading with me	58 (26.60)	138 (63.30)	22 (10.0)
10.	My parents assist me in doing my home work	80 (36.69)	134 (61.47)	4 (1.84)
11.	I interact with my teacher and friends using the ICT tools.	64 (29.36)	150 (68.80)	-

The results in table 1 show that about 93.58% of the respondents noted that reading and writing workshops were never organized. Also renowned writers were never invited to have a talk with them (76.14%); literacy days were never organized where literacy volunteers were invited (77.98%). There are no libraries in their communities (93.58%). There was no form of collaboration between parents, students and schools over literacy learning (86.24). No opportunity provided either by the school or community for students to acquire ICT skills (83.48%) and 68.80% of the students attested to not using the computer either for learning or for social interactions. At the home level, students do not have much opportunity to acquire literacy through exposure to radio and television programme as indicated by 68.80% of the student respondents. Meanwhile parents do not read with their children at home (63.30%) while about 61.47% noted that their parents do not assist them with their home work. However, 60.55% of the respondents attest to attending coaching lessons during the holidays.

Table 4: Frequency distribution counts of Administrators' Responses to Out of School Literacy Support Programmes

S/N	Questionnaire items	Yes	No	undecided
1.	The school organizes reading/writing workshops for students during the holidays	4 (13.79)	25 (86.21)	-
2.	The school organizes coaching lessons for students during the holidays.	22 (75.86)	7 (24.14)	-
3.	The school organizes literacy days and volunteers come from the community to share ideas about books with students.	5 (17.24)	24 (82.76)	-
4.	Community libraries are available where students can go to read during weekends and holidays	8 (27.59)	21 (72.41)	-
5.	There are inter-community literacy competitions during the holidays.	7 (24.14)	20 (68.96)	2 (6.89)
6.	Literacy weekends are organized when the school, the students and their parents gather to share ideas on books of interest.	6 (20.69)	20 (68.96)	3 (10.34)
7.	ICT training is organized for students by the state or local government during weekends/ holidays	6 (20.69)	21 (72.41)	2 (6.89)
8.	Teachers give and receive students' assignment using ICT tools (e-mail, face book, twitter etc)	-	24 (82)	5 (17.24)
9.	The school organizes recreational reading time during which teachers pair with students to read books of interest	9 (31.03)	13 (44.83)	7 (24.14)
10.	Parents purchase recommended books for their children/wards	6 (20.69)	19 (65.52)	4 (13.79)
11.	Students are always punctual with their homework.	15 (51.72)	10 (34.48)	4 (13.79)

Results in table 4 indicate that 86.21% of the Administrators noted that reading and writing workshops were never organized but coaching lessons were organized during the holidays (75.86). Also 82.76% of the respondents indicate that literacy days were never organized and literacy volunteers were never invited to interact with students. There are no community libraries (72.41%). Inter community literacy competitions were not organized (68.96) and there was no form of collaboration between parents, students and schools on literacy learning (68.96). Government do not organize ICT skills acquisition training for students either at weekends or during the holidays (72.41%) and teachers do not use ICT tools for teaching and learning (82%). No form of recreational reading was organized for students (44.83) while parents do not purchase recommended books for their children and wards (65.52%). However, students were punctual with their homework (51.72).

These results revealed that the literacy practices in Nigeria are more school based with little home/community involvement. The result of the survey also corroborated the submissions of the Zonal Education (ZOE) and the Local Education Authority Officers on the provision of out of school literacy programmes. The interview results indicate that

- i. Holiday literacy programmes are not organized for students in the formal school system except the holiday coaching organized by individual schools.
- ii. Out of school literacy programmes organized by the agency for mass education involve basic literacy classes for adults and youths who could not go to formal school. Meanwhile, these classes are only organized subject to the availability of teachers.
- iii. Basic studies programme is being organized for those who already acquired a certificate,
- iv. There are no community libraries, except the state owned public libraries.
- v. There no form of literacy centres for students outside the normal classroom school based teaching. The only out of school teaching is the after school and holiday coaching for academic improvement in different content areas

They also noted that the literacy level of students in the formal school system is low due to students' poor reading habit, even in their mother tongue. Funding and lack of relevant materials and personnel were also identified as problems militating against effective literacy education in Nigeria.

The result of this study has the following implications for the literacy programmes organized either for students in the formal school system or in the non-formal system.

Participatory Literacy Curriculum: Literacy curriculum must emphasise individual, home and community participation. There should be an inbuilt mechanism to monitor students' literacy activities within and outside the school hours especially integrating home and community involvement in literacy learning. This is to promote home/community/school collaboration. Besides, community based literacy practices should be inclusively structured to benefit students in both formal and non-formal systems in order to strengthen and fortify literacy skills learnt in school and reduce high drop-out rates. Community libraries, community reading and writing clubs should be instituted at the community level while literacy days are organized to celebrate literacy. This would promote recreational literacy across all groups and make even the adult and non-formal basic literacy programmes more functional.

Literacy Extension Programme: This is an avenue for literacy providers such as book publishers, text writers, ICT providers, media houses (television and radio newspaper) to collaborate. Avenues must be created for learners to connect with these groups of literacy providers. Book publishers must search for budding writers and celebrate effective readers. Teachers connect students' non school writings with the classroom and students get exposed to the internet and e-learning skills. Extending literacy beyond the classroom deemphasizes the idea of literacy as time structured instead of literacy as an ongoing, lifelong activity.

Creativity Literacy Enhancement Programme: Every literacy programme should provide opportunity for students to engage in a wide range of activities in using language and communicative skills creatively and purposefully through out of school reading and writing of texts in different genres (novels, comics, poetry and even information texts). School based literacy programmes and activities in Nigeria produce passive, teacher reliant students who lack self esteem and self confidence. The Community civic centers should be an avenue to organize

reading and writing workshops for students during the holidays. During the monthly or weekly literacy days, students' present literacy projects to their parents and communities.

Literacy and Academic Achievement Programme: One of the major goals of any literacy programme is the enhancement of academic achievement. This study shows that the major literacy programmes outside the school setting is the holiday lesson (coaching lesson) and the home work which focus on developing the subject area content. During these lessons, trained literacy specialists should be invited to provide one on one or small group assistance to students identified as having problems with basic literacy skills (reading and writing). It should be a period for remediation instead of using it as an opportunity to introduce next term or session work.

Conclusions

Attempt has been made in this study to examine the out of school literacy programmes at the disposal of the Nigerian learners. These, however, are limited with regards to depth and scope. Nigerian learners are poor readers who constantly struggle with their literacy skills in the face of a gross lack of materials either at home, the school or in the community as well as the poor learning physical environment which learners are confronted with in school. Illiteracy has therefore become the bane of Nigerian national development especially in this era with the growing literacy demands of an information saturated economy which requires that students must possess an increasingly high level reading and writing skills to be able to access such readily available information. Therefore exposing learners at the lower levels of education to out of school literacy programmes has become necessary to help them to consolidate on the basic literacy skills acquired in the school setting in preparation for further education and participation in the larger society.

Limitations to the Study

This study was conducted between January and April of 2013 within some selected local government areas in Ogun and Oyo states of South Western Nigeria. The result of the study is limited by the following:

- i) Lack of access to participants' home environment
- ii) Inability of the researcher to gain access to local government chairmen
- iii) Lack of access to community leaders.
- iv) Lack of adequate funding to carry out the study.
- v) Existing government policies

Therefore further studies may need to be carried out at intervals to review existing literacy support programmes provided within and outside the school system.

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The MESH Project: Improving the Quality of Learning in Disadvantaged Contexts via Translational Pedagogic Content Knowledge



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Abstract

The Global Education First innovation (UN, 2012), responds to a call for educators to improve the quality of learning via quality, relevant and transformative learning environments. Educators play an important role in leading this response as it is their unique learning environment that provides learners with daily opportunities to Opportunity to Learn (OTL). In disadvantaged contexts in developing countries, OTL (specifically time on task) contributes to the quality of learning in the classroom (USAID, 2008). In disadvantaged contexts in developed countries, the presence of a highly effective or high value-added teacher in the classroom contributes to quality outcomes in the areas of literacy and numeracy (Chetty, Friedman, & Rockoff, 2011). While these findings are promising for the respective settings, improving the quality of learning worldwide requires a mechanism for educators around the globe to transform their learners and their learning environments by learning from each other. Access to research on what works (see for example IES, 2013) is not enough as success in one setting may not automatically translate into success in another country. Work is needed to ensure the educators in one setting can contribute to transforming the quality of learning outcomes in another. The Mapping Educational Subject Know How (MESH) represents an innovation designed by the Education Futures Collaboration (EFC, 2013) to assist educators with this task. They believe global access to research-informed Translational Pedagogic Content Knowledge (TPCK) will build teacher capacity to improve the quality of learning in disadvantaged contexts located in both developed and developing countries.

Using Emerging Tools (Blogs, Web-Based Lessons and Electronic Feedback) to Create Engaged Learning in EFL Classroom



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Abstract

Technologies like Internet, YouTube, Skype, tweeter, blogs, mobile phones, interactive boards and many more have become the significant words in every educational environment. They have added not only motivation but also learners' engagement and true interactivity within the classroom. In language classrooms, the teachers can engage the learners to become skilled at English Language by using these innovative technologies. This paper discusses on trends in eLearning in particularly in the effectiveness of the three instructional tools, namely, blog, Web-based lesson and electronic feedback in EFL writing classes in university teaching from the author's three studies. Stress goes to the need to make English language writing lessons easy and enjoyable through innovative methods. This is done first by giving a brief review of incorporating these three tools into EFL writing classes for university students. The results in relation to students' participation and learning outcomes are also discussed. Throughout the paper, it is argued that teachers and their roles are significantly crucial and that their engagement with technology in education is closely related to success in ICT integration in language teaching. The paper concludes that e-learning will continue to grow in educational institutions. In anticipation of this growth, the administrators and professional teachers can together start focusing on applications and the effective and efficient implementation of e-learning to experience the greatest benefits that e-learning has offered now and in the future.

Key words: language, teaching, EFL, blog, web-based lessons, electronic feedback

Introduction

Recently, classrooms have been evolved by the speedy growth of information and communication technology (ICT). The Internet has accelerated the widespread use of computers for education and has created critical changes on English language teaching and learning in several aspects. A variety of emerging technological tools are changing perceptions and process in pedagogy and optimizing the learning culture. The technological tools become a powerful

instructional means in the 21st Century language classrooms. To language classrooms, these can be effective tools for improving communication skills, for example, reading can be enhanced with ICT-integrated materials. Segers and Verhoeven (Segers & Verhoeven, 2002) found that using technology to make interactive storybooks helped learners to expand their vocabulary and gain insight into the structure of narrative texts. Birmingham and Davies (Birmingham & Davies, 2001) used technology to enable learners to understand, visualize and interpret difficult texts and found that these technologies helped to develop students' understanding of language and their own critical literacy skills. This paper analyzes and discusses the values and problems of collaborative blogging, Web-based lessons and electronic feedback in the EFL classroom. In addition, it reviews problems in teachers' engagement with technology. The data concerned with this discussion and analysis are drawn from the studies in which the author has been involved and from additional study of related and recent work in this area.

21st century language teaching and educational technology

To respond to the demands of our modern global workforce, educators need to keep in pace with 21st century technologies and to understand the learners. For example, Rodgers (2006) shares that these new generation learners are likely to be a multi-taskers who are keen at using sounds and images to convey contents whenever possible. They perform better when given multi-learning stimuli. Therefore, for example, teachers of writing skills need to consider accompanying the written tasks with visual and sound materials. These learners then, also crave interactivity, are good at reading visual images, have strong visual-spatial skills, tend toward parallel processing and inductive discovery, look for fast response times which leads to short attention spans.

Technology has contributed as teaching tools in the language and second language classroom for a long time. The Internet, particularly, has become a useful tool for communication, a venue for experiencing different cultures and a mediator in diverse political, social and economical situations. The four skills in language learning (listening, speaking, reading and writing) have recently been taught using various methods and technology. Technology has achieved satisfactory outcomes in language learning. Of these four skills, it is quite agreed among EFL teachers that writing is the skill with which many teachers have the least success. Many teachers, although realizing the importance of teaching writing skills to students, also think writing tasks are time-consuming and difficult to teach. Several research studies have confirmed that Thai learners have poor performance in writing (Chinnawongs, 2001; Rojanasai, 2005; Vessakosol, 2001). Similarly, Wongsothorn et al. (Wongsothorn, Hiranburana, & Chinnawongs, 2003) declared that pre-tertiary students produced very poor writing pieces in the national assessment. Some teachers (e.g., Cumming (Cumming, 2001)) blamed the lack of experience in writing as the main barrier to students writing well.

There are many advantages in integrating technology into the classroom especially for English as foreign language (EFL) students. Thus it has employed technology to promote students' learning performance as well as learners' motivation for language learning for several decades. Many of these tools can be used by teachers for language learning purposes. Of these, weblog, Web-based lessons and some Web tools (e.g., email, chat rooms and social media) are currently familiar and recognized by many.

The effects of web-based course, collaborative blogging and electronic feedback on EFL writing skills

As 21st century students write much more via computer than they otherwise would with pen and paper, computer-based collaborative activities are likely to effectively enhance their writing ability and are critical for students' mastery of language. Technology also helps students integrate issues of language and culture and that they become active users of the language. It has enormously influenced the way teachers and students organize classes. Computer technology alleviates issues of access to information and learning resources. Due to this fascination, technology has become an educational tool supporting the strong belief that it could improve students' attention and interest in learning. Technology also makes the lesson more efficient when used appropriately in the classroom. Several kinds of technology have been successfully used in the EFL classroom; however, this paper focuses on blogging, Web-based lessons and electronic feedback for improving the writing skills of EFL students.

Collaborative blogging

Blogs have existed on the Internet since 1998. Later, in August 1999, Blogger, a free blog hosting service, was launched. This fostered the rapid growth of blog sites (Blood, 2002). A blog is an online personal journal that can be updated as frequently as the author wishes. Blogs are popular in several areas and therefore it is no wonder that education cannot afford to ignore this development. As blogs provide space and tools for writing, EFL writing can employ blogs as a powerful teaching tool.

Blogs could be a replacement for the traditional cycle used to manage a writing class. The traditional writing classroom normally involves the lodgment, marking and return of student assessment. These procedures have been done manually and require a great deal of effort by the instructor to manage the papers. Moreover, the teacher needs to be aware of the turnaround time. The worst problems are accountability, and assignment tracking and security. It is also worth mentioning that this way of managing a writing class requires a lot of paper for the drafting, writing and feedback.

Blogging, similarly to online chain discussion groups, is an easy way to engage with students' writing in the classroom. It is an effective way to manage the lodgment, marking and return of student assessment with no fuss (Baim, 2004; Beeson, 2005). Blogging using Google's Blogger.com, LiveJournal.com and WordPress.com is free and easy to set up, manage and update without additional support. As many students are active users of Facebook, Twitter or hi5, they have become familiar with blogging (Baim, 2004).

It was found that blogs allowed a user to check the changes that was made to his/her blog with no fuss. While with other tools, a user needed to "check in" occasionally to see if there is any new content posted, blogs made use of a "publish-subscribe" model in which the subscribers received notifications when new content was posted. In the writing classroom, therefore, blogs were qualified as a pedagogical tool (Richardson, 2006).

In addition, blogging in the writing class could replace the cycle of steps in developing an essay: brainstorming, writing, submitting, receiving feedback, revising writing and resubmitting. Blogs clearly benefit the writing classroom. They enabled the instructor and students to communicate through and about writing. Both sides could easily update online writing.

These findings are in accordance with several recent works. For example, due to its ease of management, blogging in the EFL writing class enables students to exchange feedback. This is a characteristic of collaborative writing (Storch, 2005). Both students and teacher learn how to negotiate (Blake, 2008; Lee, 2002; B. Smith, 2003) through blogs on the extent of student control and teacher intervention. In comparison with the traditional EFL class, it has been found that blogging promotes peer response activities (Liang, 2010) and that students develop autonomous language learning ability (Kessler & Bikowski, 2010). Students have the opportunity to learn complexity and lexical diversity through feedback (Sauro & Smith, 2010). As noted by Bloch (Bloch, 2007) and Pennington (Pennington, 2004), it has been observed that students are highly motivated to write and to write well as a result of the nature of the online writing context.

To promote collaborative writing in class, the teacher is recommended to consider the activities involving with social media such as Facebook or blog. Students may be asked to do a project work in which they are required to work collaboratively in group with others.

Web-based lessons

The popularity of the use of Web-based instruction has expanded due to the fact that Web-based instruction enables access with no limitations on place and time (Relan & Gillani, 1997; D. G. Smith & Barber, 2005). In education, the availability of the form of Web-based instruction or technology in education provides useful information to help students gain knowledge. According to Khan (Khan, 1997), Web-based instruction is an innovation which transfers instruction to audiences living in other places by using the Web as a transferring tool. It creates education on the Web by using the Web as a medium in learning and contact (Sarica & Cavus, 2008). In addition, it combines today's technology and instructional design methodology to increase learning effectiveness and solve problems of time and place (Laohajaratsang, 2001; V., 2008). Moreover, Web-based instruction was defined as "the application of a repertoire of cognitively oriented instructional strategies implemented within a constructivist theory" by Perkin (Perkins, 1999). In other words, Web-based instruction is based on constructivist theory. In addition, Web-based instruction implements collaborative learning in which information and resources are utilized from the Web (Relan & Gillani, 1997). Web-based instruction is also known as a hypermedia-based instructional program creating a learning environment which encourages and develops people's knowledge by using the Web to access resources and information Khan (Khan, 2001)..

Due to the fascinating characteristics of Web-based instruction, it is considered a powerful tool for promoting the teaching of writing in EFL classroom. The integration of Web-based instruction in learning and teaching is one effective teaching method (Khan, 1997) which is expected to help students to improve their use of conjunctions. The recommendations below, being gathered from the study are related to the application of Web-based lessons:

Commitment: There should be strong commitment between teachers and students. Since there is no coercion from teachers, students should be convinced or encouraged to join the Web-based lesson. Teachers should inform and lead students to believe that learning through a Web-based lesson also affects their learning. Teachers might emphasize the extra points that students would gain or the improved learning outcomes achieved through using this material as it would help them to develop their understanding of language use.

Characteristics of a Web-based lesson: The activities in a Web-based lesson should be made attractive to increase students' motivation. The Web-based lesson should provide students with interaction. The Web-based lesson should also provide activities in which students can interact with their friends. These activities might come in the form of an online discussion or peer review. Teachers might raise some topics and encourage students to respond to. Students should be explicitly informed about both intrinsic and extrinsic motivation. For example, they should be directly tested on what they had learned in the Web-based lesson. This would intrinsically motivate their desire to learn through the Web-based lesson. Furthermore, extra points should be separately allocated without being included within other grading criteria. This could lead to students giving precedence to learning through the Web-based lesson. Since the design of the Web-based lesson could attract students' attention, the Web-based lesson should be well designed. Sound, animation or stimulating activities could be added to the Web-based lesson to gain students' attention.

Motivation in learning with Web-based instruction: Students studying under a learner-centred approach need more intrinsic motivation. On this issue, Weimer (Weimer, 2002) also gave an example of intrinsic motivation. Students being intrinsically motivated if they were tested on what they had learned on the course. Thus learner-centred approach may actively engage students to all activities and could raise their level of motivation in learning.

Web-based instruction and social media: The Web-based lesson should be applied within well-known social networking services such as Facebook or Twitter in order to provide easy access to students. These services are attractive and widely used by many people. With Facebook or Twitter, teachers and students would be able to easily connect to each other. They can both share interesting information and comment on their friends' status. Therefore, if the accounts for these subjects are registered with these social networking services, teachers would be able to reach their students and also to use these services as a medium for learning.

Electronic feedback

Electronic feedback is a method in which teachers apply technology to give feedback (Ellis, 2009). Reviewing literature, it was believed that electronic feedback had potential to improve students' writing and to be capable of addressing the limitations of traditional feedback. In fact, a number of researchers have made critiques of strategies for teaching writing (Yunibandhu, 2004). Strategies applied in the teaching of EFL writing mainly focus on grammar and the writing content (Foley, 2005). Nevertheless, this usual strategy might not be effective enough for developing students' writing abilities. This might relate to providing feedback which is a main process in writing teaching strategies (Reid, 1993). Hand-written and individual oral feedback, the main methods in the EFL context, have limitations in improving students' writing abilities. For example, students might correct the errors according to feedback given by the instructor without learning the issues behind the errors (Truscott, 1996). Moreover, written feedback was related to cultural issues (Hyland & Hyland, 2006). In Thai culture for example, students may be afraid of losing face when they are given feedback in writing. In some strategies, teachers might give both written and oral feedback to students individually. These strategies might make students feel embarrassed. In addition, traditional feedback takes time. Students have to wait for their teacher's feedback before they rewrite their compositions. The process of giving feedback might also be problematic in terms of the amount of time consumed. Moreover, if students are not clear about the feedback provided, they may have to wait for a week to meet their lecturers again.

in order to discuss the unclear. Hand-written feedback might not be clear because of the limited space available in traditional written feedback. These problems might cause misunderstandings between the feedback givers and receivers. Therefore, the traditional way of giving feedback in the EFL context could be considered as a potential cause of problems in the EFL students' writing performance.

In this study, the advantages of electronic feedback were noted. Firstly, after receiving feedback, students were able to review their feedback and to make the decision about whether they wanted to accept it. Secondly, the process of electronic feedback was done online. Students felt more comfortable receiving comments without losing face which might be the case with classroom feedback. Moreover, the electronic method saved time because students could check the feedback online, and they could ask for more information by phone or email. In addition, teachers could more easily check whether students had copied their work from the Internet by searching for doubtful phrases or sentences using a search engine to trace the original sources. Therefore, plagiarism was greatly reduced. In addition, the function of the *Review* tab of Microsoft (MS) Office programs allowed additional comments on students' compositions to be made easily at *New comment* button. The clarity of feedback was found positively affected students' writing of compositions. Electronic feedback was therefore found helpful in improving writing skills in the EFL context.

The following section discusses findings that are of interest and recommendations on the application of electronic feedback to improve EFL students' writing:

Effectiveness of electronic feedback: Giving electronic feedback on students' writing allows students to see their mistakes and guides them on how to solve their errors. This might help them to improve their writing abilities in terms of both grammatical structure and composition content. Technological support in the EFL classroom has been discussed by studies such as those by Albirini (Albirini, 2006). These studies explained that technological support might contribute to an effective EFL classroom as teachers and students interact with each other more comfortably and teaching techniques such as the giving of feedback are supported. Therefore, this could explain why electronic feedback is effective in improving students' writing abilities.

Giving feedback to students electronically plays an important role in the improvement of students' writing ability. At the very least, it is helpful in supporting the EFL writing classroom as confirmed by Yeh and Lo (Yeh & Lo, 2009).

Other tools allied with electronic feedback: Technology is a possible method for supporting the giving of feedback in Thai teaching of EFL writing. Furthermore, electronic feedback might be a good alternative method for solving problems such as students' copying habits since students have to consider the feedback before they accept it. In addition, posted links and PDF files guide them in learning how to solve their problems in writing. Moreover, as this method uses MS Word 2007 to give feedback to students, the software functions support the giving of feedback. Consequently, students can more clearly see their feedback, and the limitations of traditional feedback in terms of limited feedback space would be solved. Furthermore, the whole process is done online: students do not have to make an appointment to receive feedback which is what was usually done with traditional feedback. Therefore, the problem of the amount of time consumed could be solved. The use of this method is therefore recommended to address issues related to strict rules, for example, grammar and organization. In fact, it is an effective alternative method

for solving writing errors in the Thai EFL context. This method seems to address the limitations of traditional feedback, dealing with errors in strict grammatical rules and organization.

Problems in teachers' engagement with technology in education

No matter how powerful and useful of computers, technology and the latest advances applicable to language teaching such as specialized websites, blogs, wikis, language teaching methodology, journals, and so in language teaching are, to some teachers these tools are still a source of fears and insecurity. Although many educational institutions have done institutional efforts to prepare their personnel and equipment by spending large amounts in technology to prove the positive effects of integrating computers in language learning (Tsou, Wang, & Tzeng, 2006) and so, a lot of teachers still miss the proper attention, will to learn and a appropriate attitude towards teaching with technologies. Many reasons (e. g., the lack of time for training) lead to low utility in using. One major concern commonly shown by both teachers and education boards is how to motivate and instruct teachers to integrate computers and ICT into their classes. It is stated that the quality of instructors who teach online courses cannot be guaranteed since anyone can put a course online (Weiger, 1998). Prior to its effective and routine use, teachers need time to learn about technology in addition to the time required for course preparation. With regard to producing teaching materials, teachers definitely need more time and ongoing training. Cuban, Kirkpatrick and Peck (Cuban, Kirkpatrick, & Peck, 2001) also found that, although the increasing availability of computer equipment in schools offers easy access to computer resources, many teachers fail to alter their existing patterns of teaching.

Adding the challenge to the context, the demands on teachers and their delivery needs are usually ignored. Therefore, in reality, not many teachers are actually using computers with their classes. The fact is that technology is both concerned with the means for change and is a change in itself. Reviewing the literature particularly on Thai ICT policy, the main emphasis of the training is on ICT skills and management efficiency, with little application to pedagogic purposes. This might be one reason why many Thai teachers do not use technology in their everyday practice.

Problems with teachers' technology skills

As technology is itself complicated, users (i.e. teachers and students) are unavoidably required to learn about technology before they can move forward to learn to teach/to learn with technology. Undeniably, as technology delivers both the subject and itself as a tool to learners, a teacher must be made knowledgeable and comfortable with the tools to ensure that they can effectively use them.

Teachers begin teaching with a certain knowledge base (Cochran-Smith & Lytle, 2001; Lieberman, 1994). Throughout their careers, they need to build on pedagogical theories and develop their practice (Darling-Hammond & McLaughlin, 1995), for example, by learning about technology and how to evaluate its potential in their teaching. Teachers can engage with technology in a variety of ways. Typically, courses are designed to assist teachers to become proficient in using the hardware and software that can support their teaching.

Therefore, the nature of technology as a subject is not the only consideration in designing professional development for teachers. Teachers' demographic and biographical characteristics are just as important in determining the success or otherwise of professional development provision in this area.

Problems with engaging teachers in technology training

Obstacles to the use of technology in teaching and learning can be classified into four related categories: lack of supervision and technical assistance; attitude and perception regarding the use of technology; workload issues; and technology management and infrastructure. These are addressed in the following five sections.

- **Lack of ICT knowledge and skills:** Teachers should learn how to use technology: Palloff and Pratt (Palloff & Pratt, 2000) added that the instructor must be trained both to use technology and also to shift the way in which they organize and deliver material in a technology environment. Likewise, (Gunawardena, 1992). This is absolutely the case when using technology in teaching as it requires teachers to have more skills than the traditional teaching skills in the classroom. Effective use of these tools means teachers have to cope with transformation.

Workload issues: Workload issues are also significant problems when there is a high teaching load. UNESCO (UNESCO., 2006) stated that teachers who attempt to use technology in classrooms must be provided with appropriate and sufficient time for training and practicing opportunities. According to some teachers, the training is time consuming and increases their workload even more. On the other hand, it is claimed that effective integration of technology in lessons is time saving, and preferred to blame increased workload on poor technology skills and strategies in the classroom (DfES., 2004).

Unreliable and obsolete ICT equipment: The use of technology in higher educational institutions is also found to be unsatisfactory due to inadequate, unreliable and obsolete technology equipment, both software and hardware. Such problems are caused by lack of support from organisations. Preston et al. (Preston, Cox, & Cox, 2000) remarked that these factors prevent teachers from integrating technology into teaching. Similarly, a deficiency in administrative support in implementing change (through leadership, planning and the involvement of teachers as well as managers) is a barrier to using technology in education (Cox, Preston, & Cox, 1999).

Pedagogical use of technology: One difficulty with integrating technology in the language classroom is that despite its amazing memory capacity and processing speed, it is still no match for the intricacy of natural language. It is generally thought that authentic language – language used by people in real contexts for real purposes – is the best model for learning. Richards and Rodgers (Richards & Rodgers, 1986) as well as Atagi (Atagi, 2002) argued that integrating technology into instruction may not lead to success in EFL classrooms if teachers have no pedagogical knowledge. Thus, they advised teachers to carefully study the subject matter into which they are going to integrate technology and make the right match.

Participation in technology training programs: Professional developers of technology need to prepare for obstacles which may lead to failure of the program. Timetabling is a significant issue for ensuring adequate participation, and it is suggested that teachers need technology training program which matches their schedule. Thus, a big challenge in organizing technology training program occurs when some teachers cannot attend technology training sessions due to their high teaching load. Another significant issue is the link between technology training activities and real

practice in the classroom. Waddoups, Wentworth and Earle (Waddoups, Wentworth, & Earle, 2004) found that a technology training program can be spoiled if the emphasis is put on training in the use of technology rather than on linking this technology to real-life situations. Failures in technology training programs may occur when participants are not given anything to refer back to when they find themselves struggling to generalize the skills gained from training in their everyday practice (Popham & Rocque, 2004).

In summary, the successful delivery of lessons largely depends on both the instructional design and how it is used. Thus, the integration of ICT into foreign language teaching depends largely on teachers who, due to limitations in their skills and knowledge, may design programs poorly and be unable to use them efficiently.

Conclusion

Kolb (1984) says that learning is "the process whereby knowledge is created through the transformation of experience." 21st century educational tools not only engage students, but also prepare them for their future professional lives. Students developed their collaborative working and high-quality writing pieces that directly reflect the impact from engagement opportunities. Emerging technological tools have transformed learners from receivers of knowledge, skills and dispositions. The learners tend to become active learners who involve in doing things and thinking about what they are doing. They were more engaged in reading, writing, discussions and problem-solving. They took part in learning activities more because their learning activities are combined with an action such as giving feedback to others. Class activities have moved these learners from the learning from faculty presentation to understanding, applying, analyzing, synthesizing

This paper is intended to provide insight into the wealth of educational technologies and their power in language teaching and learning. As presented, a great deal of the success in language classroom comes from preparing teachers to use technology that encourages interaction from learners in this online environment. If technology is effectively integrated in our teaching, our new, refocused approach to teaching will drive us a long way to making technology a more rewarding tool in the teaching and learning process. This paper has examined that these educational tools have been used and has confirmed their potential particularly in improving EFL writing skills. The author expects that, at the very least, the paper will raise awareness of the need to reflect upon new ways of language teaching and learning.

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Educating teacher educators for Jamaica: The Master of Arts Programme in Teacher Education and Teacher Development



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Abstract

As they seek to improve the quality of education, systems of education across the world are beginning to recognise the critical value of the teacher educators' work. Likewise, recent attempts in the Caribbean through CARICOM and the Organisation of Eastern Caribbean States(OECS) to draft competencies and standards for teacher educators point to an acknowledgement of the teacher educator as playing an important role in influencing the quality of teachers, teaching, and by extension, student performance. In spite of this recognition, formal programmes that focus on the preparation of teacher educators are rare, so most teacher educators come to teacher education as good teachers with knowledge and skills in their discipline but not necessarily in the pedagogy of their discipline nor in the education of teachers. However, in Jamaica, the School of Education at the University of the West Indies has attempted to address this gap by offering an innovative graduate programme designed to help teacher educators acquire the knowledge, skills, attitudes and values necessary to participate in the delivery of good teacher education. This paper describes the programme, the underlying philosophical principles that informed its development, and its curriculum. It highlights the programme's signature features: an emphasis on second-order teaching and deepening students' pedagogic reasoning, attention to expanding students' identity from teacher to teacher educator, as well as giving them the opportunity to critically reflect on their beliefs about teaching and learning to teach. The paper also shares feedback from participants about how the programme has impacted their practice.

Keywords: Teacher education, Teacher educators, Teacher educator development, Jamaica

Research shows that teaching is the most important factor impacting student learning, achievement and performance. It is quality teachers who produce significant and high quality student learning, achievement and performance (Cooper & Alvarado, 2006; Villegas-Reimers, 2003). Research also suggests that the best quality teachers are those who have acquired a sophisticated knowledge of what constitutes quality learning and teaching, as well as a critical

understanding of how they themselves can keep growing and developing as professionals (Darling-Hammond & Bransford, 2005). Although the development of teachers' professional and personal knowledge develops over the course of their careers (Feiman-Nemser, 1983) from their experiences in the classroom, in educational institutions, and teaching cultures, the foundation of what they know and practise is best acquired in initial teacher preparation programmes. It is therefore very important that teachers have access to quality teacher education and teacher development programmes.

The literature suggests that the best teacher education programmes are those taught and led by educators with clear visions of good teaching combined with formal knowledge of the best ways of helping teachers learn to teach, (Darling-Hammond & Bransford, 2005). It is our view that the provision of good teacher education and good teacher development opportunities requires the participation of well-prepared teacher educators and teacher leaders who understand the complexities and challenges of enacting good learner-centered teaching, and who are committed to sharing and modeling this knowledge through sound, critically reflective teaching practices. These are teacher educators and teacher leaders who understand how teachers grow and develop as professionals. They understand the important roles teachers can play in shaping cultures and society and are personally and professionally committed to preparing teachers to be leaders and agents of change in their institutions and school communities.

Unfortunately, the myth that teaching certification and advanced subject matter knowledge are the only prerequisites needed for becoming a good teacher educator still persists. Thus the pivotal work of the teacher educator and teacher leader is often misunderstood, overlooked or undervalued within the wider context of education. This position is supported by the European Commission's Staff Working Document (2012) *Supporting the Teaching Professions for Better Learning Outcomes* which states,

Teacher educators are crucial for the quality of the teaching workforce, and too often neglected in policy-making. It is they who are present at every stage of the teacher's life-cycle, teaching and guiding them; it is they who should model and exemplify in their daily teaching what it means to be a professional learner-centered teacher; and it is they who undertake the key research that develops our understanding of teaching and learning.
(p.52)

The professional preparation of teacher educators however, has until now, been largely under-emphasized (Ben-Peretz, Kleeman, Reichenberg & Shimoni, 2013; Bates, Swennen & James, 2010). Given the growing recognition that improving the quality of teacher educators will improve the quality of teacher education it seems critical therefore that emphasis be placed on helping teacher educators to be ready for this crucial and critical role.

Discussions around this issue seem to focus on a variety of strategies such as (a) improving the selection of teacher educators (b) developing a specific set or model of competences for teacher educators which would be guided by professional standards (c) providing teacher educators with programmes for induction (d) provision of opportunities for teacher educators to be involved in ongoing professional development activities through professional associations and professional learning communities (European Commission's Staff Working Document, 2012; Pope & Jones, 2006; Loughlan, 2013). In this paper we describe and discuss an innovative graduate programme that is designed to deliberately and purposefully value and support the professional preparation and development of teacher educators in Jamaica and

the wider Caribbean. Offered by the School of Education, at the University of the West Indies, Mona, Jamaica this graduate programme subscribes to the view that quality teacher education can be improved by what Grossman (2012) calls the “intentional, rigorous preparation of future teacher educators” (p.v)

The current programme, a Master of Arts in Teacher Education and Teacher Development has its roots in a Masters of Teacher Education programme developed some twenty-five years ago. The original programme was designed as a Masters in Teacher Education to help teacher educators acquire the knowledge, skills, attitudes and values necessary to participate in the delivery of good teacher education. It was deemed necessary within the Jamaican context where the greatest number of teachers was and still are trained in ten designated teachers colleges by teacher educators called lecturers. In the 1980’s few college lecturers had more than a Bachelor’s degree in a subject specialization. The intention was that the programme would provide lecturers with the opportunity to upgrade their academic qualifications and readiness to train teachers by obtaining a graduate degree in the field of teacher education. The revised programme, offered for the first time in 2010, included the field of teacher development. This revision was done because over that period most of the 400 to 500 lecturers in the teachers colleges had obtained graduate degrees in various fields. The target population was therefore changing and the focus of the programme shifted towards preparation of *future* teacher educators instead.

In keeping with this objective the programme was also responding to a growing recognition across the Caribbean of the critical value of teacher educators’ work and movements through CARICOM and the Organisation of Eastern Caribbean States (OECS) to draft competencies and standards for teacher educators. The programme also sought to adopt a thematic approach whereby all courses were revised to address themes and concepts engendered by the UNESCO EFA and Millennium Development Goals.

In light of current interest in constructing knowledge about possibilities for improving the professional preparation of teacher educators it seems useful that we share what we have endeavoured to accomplish with this programme and what it has taught us about the critically important task of educating teacher educators.

The Programme

The Master of Arts in Teacher Education and Teacher Development is founded on the belief that teacher educators and teacher leaders can and should make a profound difference to the quality of the teaching and learning in their institutions as well as the character and culture of the institutions they serve. The programme (offered in both face-to-face and online modes) was developed around the beliefs that Jamaica and other Caribbean territories need teacher educators and teacher leaders who are formally prepared and qualified to work as teacher leaders and teacher educators, who champion and model high standards in learner-centered teaching and learning, who are exemplars of teacher professionalism, who focus on improving outcomes in their institutions and are willing and prepared to act on and within teacher and school cultures to make changes that will contribute to sustainable student, teacher and school development and improvement.

The programme’s central philosophy includes the view that the dynamic, dialectic integration of theory, research and practice must play a central role in preparing and developing

teacher educators and teacher leaders. It also holds that critical, reflective inquiry is central to improving educational practice and that adult learners require self-directed, experiential and reflective learning activities that incorporate prior experience. While it is important to value practitioners' voices and thinking, it is also important to push them beyond their assumptions and comfort zones (Evans & Mohr, 1999). Another critical belief that underpins the programme is that good pedagogy is best learned through exposure to modeling of sound teaching practices, and the enactment of sound values and attitudes by good teachers with a clear and common vision of what good teaching is (Darling-Hammond, 2006).

Guided by these beliefs the programme seeks to provide participants with theoretical knowledge of various aspects of the field of teacher education. They are required to take core courses such as *The Theory and Practice of Educating the Teacher*, *Adult Learning Methods & Teaching Strategies*, *Supervising and Evaluating Pre- and In-Service Teachers*, *Changing Cultures Changing Schools*, *Teacher Leadership*, and *Inside Classrooms*. These courses are also deliberately designed to infuse consciousness and commitment to critical concerns that are currently engaging Caribbean education such as Family Life and Citizenship, Values and Attitudes, Education for Sustainable Development, and Change and Diversity. Participants are also required to take a research methods course and do a nine-credit Research Project. They also have the option of taking six to nine credits of electives chosen either from education courses offered by the School of Education or from other faculties across the university. This provides them the opportunity to improve their academic qualifications in their area of subject specialization.

The most significant feature of the programme is its emphasis on helping the participants to make the personal and professional shift in identity from teacher to teacher educator. They are thus asked to critically reflect on and articulate this in various ways as they move from course to course. The view that professional development is enhanced when practitioners bond through shared experiences and collaboration is constantly emphasized so that participants are able to observe the process of developing communities of practice first-hand. They are encouraged, for example, to work in groups on projects and faculty devote time and energy outside of formal classes to engender each cohort with a sense of collective purpose, caring and concern for each other.

To prepare participants for the role of training teachers the courses also offer them the opportunity to construct and deepen their understanding of the classroom as a laboratory. This is achieved through a variety of practical assignments in which participants are given opportunities to apply theory to practice. For example, research activities are woven into core courses in clearly defined ways. There is clear articulation between the research project and other courses. Faculty who teach the courses subscribe to the notion of pedagogy-in-action and so deliberately model a variety of approaches. This involves engaging participants in dialogue that makes explicit individual ways and models of teaching. Conscious of the issue of first and second order teaching (Murray & Male, 2005) faculty members seek to communicate the pedagogic reasoning that informs their practice.

Impact of the programme

Since its revision the programme has served two cohorts of face-to-face and two cohorts of online participants drawn from across Jamaica and the wider Caribbean. It has enjoyed success in that participants have orally expressed some degree of satisfaction with the experience. Some

have found jobs in teachers colleges or other teacher training institutions. However, as with all teacher training programmes, a key concern for us is to be able to assess how successfully our graduates have been able to transfer into practice what they have learned about teacher education and teacher development in theory. This has led us to consider whether our graduates have really acquired a sense of identity as prospective teacher educators. We wanted to find out what they have learned from the programme and how well they feel the programme has prepared them to assume the role of teacher educator or teacher leader.

The Survey

To provide some answers to these questions we conducted an online survey using Monkey Survey to solicit feedback from the first cohort of twenty-four graduates from the face-to-face programme; this was administered seven months after graduating. The survey comprised a mixture of closed- and open-ended questions. Drawing on the preliminary results returned by Monkey Survey we concluded that the graduates' main reason for registering for the programme was a desire to use the qualification to move to another level of the system. Given that most of them are employed as full-time secondary school teachers (with three working as part-time college lecturers) one can assume therefore that they aspire to work as full-time lecturers in a teachers college.

All respondents reported that they would recommend the programme to their colleagues and cited their increase in knowledge and understanding about how teachers grow and develop, what constitutes quality teaching and learning, and commitment to the profession as among the most compelling changes that resulted from their participation in the programme. The area they reported as being least altered by participation in the programme was expertise in their subject areas. The extent to which this result is related to whether they took a concentration of electives in their subject area needs further investigation.

The survey results suggest that with the exception of one respondent who has left the field of education, all of the graduates believe that the programme has impacted their professional practice. The nature of the impact on their practice ranged from having more "responsibility, authority and autonomy" at school to better supervision of teachers and "greater reflection" on teaching and its impact on student learning. Respondents also identified initiatives and projects that they had undertaken which were inspired by their involvement in the programme and they were overwhelmingly positive in their responses when asked to compare their professional selves before and after the programme. Chief among programme enhancements that they suggested, were expanding the pool of electives and extending the research course over two semesters rather than one.

Conclusions

Analysis of the survey has not been completed as several of the graduates have not yet completed the questionnaire. It seems however that overall the Master of Arts in Teacher Education and Teacher Development programme is having a positive effect on participants in terms of their changed sense of professional identity and deeper understanding of the type of attitudes and professional views a quality teacher educator/leader should have. It is encouraging also that survey respondents seem confident in expressing sound recommendations for

improving the programme content and structure. The findings, after completion of our analysis of the survey results, will be used to guide improvements and inform future decisions about the programme.

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Developing Engaging Reading Pedagogies for Disadvantaged Students in Low SES Australian Schools: Lessons Learnt From Students' Voices



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Abstract

Disadvantaged students from culturally, linguistically, and economically deprived backgrounds in Australia have performed persistently at relatively low levels in both national and international testing on reading literacy. Close exploration of disadvantaged students' reading engagement is urgently required if these students are to be assisted through education to make contributions to workplaces and communities, both locally and globally. In this study, forty-six Year 5 students with persistently low reading achievement levels from schools situated in extremely low-SES suburbs in the Australian state of Queensland were selected for interviews and classroom observations. The findings below were derived mainly from the semi-structured interviews that centred on building our understanding of students' perceptions of their classroom reading experiences and their personal cognitions related to reading. Our interpretation of these data indicates that disadvantaged students are able to tell us much about their disengagement and possibilities for better response as readers, and, that we might begin the professional journey of finding this space by mining the following considerations for pedagogy to assist them toward greater engagement when reading: Effective classroom management, teacher as a reading model, high levels of reading support, opportunities for collaboration, availability of engaging reading materials, and supporting the development of personal purposes for reading. Our data establish that disadvantaged students recognise these considerations and we conclude that their voices provide an essential resource in populating such considerations for the pursuit of reading pedagogies to re-engage these students.

Keywords: reading, disadvantaged students, classroom practices, students' voices

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1. The Problem

As teacher educators, we share the frustration that many teachers working in low SES schools experience when students disengage from reading. The significance of the disengagement issue has been highlighted by such students' below-benchmark performances in literacy and other reading assessment in both national and international testing (cf. Ng, Bartlett, Chester & Kersland, 2013). Reforming reading pedagogies for disadvantaged students has become critical not just for advancing individuals' literacy development, but also for maintaining equity in the Australian education system by narrowing the reading achievement gap. In this study, we explored possible avenues for reforming reading pedagogies based on students' perspectives derived from one-to-one interviews.

2. Students' Voices

Many teachers working with disadvantaged students attribute the problem of low achievement and disengagement in reading to students' generic lack of motivation without attempting to search for alternative reading pedagogical practices to rectify possibly-repairable situations. Elsewhere, we have argued that disadvantaged students may not lack motivation to read as a generic phenomenon and provided evidence of turnaround performances under different learning and teaching practices (Ng & Bartlett, 2013). An important consideration in such turnarounds is to approach the challenge strategically – to strategically search out and listen to students' explanations, and to co-create reading pedagogical environments to address their needs (cf. Moje 2002). Tuning into students' voices makes us insiders to students' accounts of reading and of themselves as readers.

Research on reading pedagogy in the past few decades has resulted in many models of reading practices that have been driven overtly by specific theoretical perspectives. While these models, such as reciprocal teaching, have been widely tested and their effects verified, they cannot be taken as the panacea for reforming reading practices among disadvantaged students when our understanding of diverse groups of disadvantaged students remains limited. Currently, there is a dearth of reading research in Australia and internationally about disadvantaged students as readers. In other words, reforming reading pedagogies for disadvantaged students using established reading models can be described at best as reformative efforts based on incomplete pictures of classroom practices. Part of what is missing is the inclusion of students' own knowledge of how these practices can be improved.

Compared to other student groups, disadvantaged students often learn to read within different sets of sociocultural, economic and personal constraints/affordances (cf. Guthrie, Coddington & Wigfield, 2009). Acknowledging their voices is to empower these students and to help their teachers find effective ways to address these constraints and to capitalise on available affordances. Listening to them also endorses their authority and accepts as significant their role in improving classroom reading practices (cf. Taylor & Robinson, 2009). Theoretical support for privileging students' voices in the pursuit of engaging reading pedagogies can be drawn from constructivist theories that build on the assumption that students themselves need to construct their understanding and assess their learning. Similarly, post-modern, post-structural and other critical theories have brought students' voices to the fore in understanding power dynamics in education.

There are benefits for incorporating students' perspectives in the pursuit of engaging reading pedagogies. First, disadvantaged students hold important and valuable knowledge of reading pedagogy, how they experience it directly and how it can be improved. Listening to them will help teachers see their teaching and its limitations from students' perspectives. Second, endorsing students' voices will not just empower them and promote participation in reading, it also will avoid the deficit perspective on education that inadvertently positions disadvantaged students as incapable of reading (Ng & Bartlett, 2013). Finally, listening to students' voices can aid teachers' professional reflection and lead to more collaborative and solutions-oriented environments for learning and teaching.

3. Seeking Students' Voices – An Interview Study

The current study was part of a large longitudinal project on understanding reading engagement and disengagement among disadvantaged students in Australia. As the first step to understanding their perspectives on reading practices, we interviewed two separate groups of disadvantaged students who had been identified by their teachers as either engaged (N=22) or disengaged (N=24) readers.

Semi-structured interviews were used because they were flexible, allowing us to check issues promoted by the extant literature while facilitating disadvantaged students' opportunities to voice their views, concerns and suggestions about reading, and of their experiences as the context for its teaching and their learning.

3.1 Participants

Participants were 24 male and 22 female students averaging 10.45 years of age. The sample was drawn from Year 5 students in seven primary schools situated in low SES suburbs (lowest 5% according to Australian Bureau of Statistics) within Brisbane city and from two others in rural Queensland, over 400km away from the Brisbane CBD. Students' average performances on national testing on literacy and numeracy in these selected schools had been recorded as substantially and consistently below national average levels.

We used a bipolar scale to assist teachers to nominate both engaged and disengaged students for the interview. The scale required teachers to assess their nominees in terms of frequency of observed engagement/disengagement behaviours, levels of reading enjoyment and efficacy, purposes for reading, and willingness to take on reading challenge.

3.2 Data collection and analyses

The interview was designed to understand students' reading experiences and to explore their personal cognitions on reading. The main questions were:

1. About classroom reading experiences: How often do you have reading? What do you do during the reading period? What does your teacher usually do during the time that you read? How do you feel about the reading period? Tell us something that you like or dislike about the reading in this class.

2. About personal cognitions: Is it important for you to read in this class and why? Are you a good reader? Do you enjoy reading? Tell us a reason why you want to read or why you don't want to read in this class.

Interviews were conducted in the participating schools and usually took about 30 minutes. All interviews were recorded and transcribed for analysis.

Analysis involved three rounds of reading and sorting content of these transcripts. The first covered all transcripts and provided a general overview of the corpus of information and themes. The second involved development of a coding system based on an intense reading of five randomly selected transcripts. The third round of reading involved the coding of all the transcripts using the coding system developed from the second round. Fine-tuning of the coding system occurred progressively throughout the second and third phases, wherein consistency in the larger themes and analytical categories emerged as identifiers of key considerations in students' responses.

To verify the process, the themes and categories were compared to observation notes and comments provided by research assistants who conducted these interviews. Further verification was conducted by cross-checking students' responses from these two contrasting reader groups and teachers' initial assessment of students' engagement characteristics.

4. What Did Students Say about Reading in School?

Both engaged and disengaged readers had similar reading experiences in school. These included a variety of reading activities such as quiet-time individual reading, group reading, teacher-led reading, completing worksheets, reading for promotional programs, and library reading. They had been given free choice as to what to read in their classes or at the library during quiet reading.

A significant difference was perceptions across the two groups of what their teachers were doing when students were reading in class. Among engaged readers, 45% (N=10) reported that their teachers offered assistance and continued to work with them. In contrast, only 13% (N=3) disengaged readers reported salient teacher activity and interaction with them. Rather, disengaged readers (46%, N=11) indicated that their teachers spent their time on disciplining students or working on other matters –“ taking snacks”, “talking to another teacher”, “just do stuffs” and “watch us”.

Only four readers across both groups (three engaged and one disengaged readers) replied positively that their teacher also read while students were reading. Similarly, only ten readers (6 engaged readers; 27%; 4 disengaged readers; 17%) indicated that their teachers often read with or to them.

In terms of choosing between reading alone and reading in a group, 45% (N=10) engaged students and 32% (N=7) disengaged readers preferred reading alone. The relative incidence was reversed with preferences for reading in a group. 41% (N=9) engaged readers and 50% (N=12) disengaged readers made this choice. The reasons given for a preference for reading alone for both types of readers included “quietness”, “faster reading”, and “little disturbance” in doing so. The students' reported reasons for choosing group reading among both types of readers included the “sharing of views and answers”, “helping each other”, “taking turns”, “fun and excitement” that were involved.

Concerning what they liked about their reading lessons, 86% (N=19) of the engaged readers quoted different intrinsic aspects such as enjoyment in reading different types of books. While a majority of disengaged readers (54%, N=14) also quoted similar intrinsic reasons for liking their

reading lessons, 21% (N=5) gave reasons for doing so that were more extrinsic (e.g. such as having a chance to sit with friends or pleasing the teacher). In terms of what they disliked, most engaged readers (32%, N=7) quoted “being interrupted”, i.e. prevention of continuing, while many disengaged readers (38%, N=9) indicated a quality of the activity such as its “boring” nature or the “need to do it everyday” as responsible, i.e. perpetuation of an unsupportable rationale for reading.

5. What Did Students Say about Themselves as Readers?

As expected, few (N=2) in the engaged reader group described themselves as poor readers. However, not many disengaged readers (N=7) described themselves in this way. In terms of labeling themselves as good readers, surprisingly, similar numbers rated themselves as “good readers” (45%, N=10 for engaged readers; 46%, N=11 for disengaged readers) or “kind of a good reader” (40%, N=9 for engaged readers; 25%, N=6 for disengaged readers).

While more engaged readers (86%, N=19) than disengaged readers (63%, N=15) reported that they enjoyed reading, both groups unanimously considered reading important. Regarding their reasons for wanting to read, engaged readers cited intrinsic reasons (82%, N=18) such as “interesting books”, “exciting stories”, and “learning something new”. Every engaged reader was able to find a reason to engage in reading. In contrast, 38% (N=9) of disengaged readers reported not having a reason to read. There was a similar drop in comparison of reasons to explain their reading engagement with only 46% (N=11) of the disengaged readers (cf 86% of their engaged reader peers) listing intrinsic reasons.

Similarly small percentages of readers from both groups (18%, N=4 for engaged readers; 21% N=5 for disengaged readers) quoted external reasons such as “being interrupted” to explain why they did not read. However, there was only one engaged reader who saw boredom as a reason for reading disengagement. In contrast, 25% (N=6) of the disengaged readers blamed boredom. Quite a few (27%, N=6) engaged readers could not find a reason at all to ever disengage from reading.

6. Lessons Learnt from Students’ Voices

Based on our thematic analysis and interpretation of participants’ responses, developing an engaging reading pedagogy for disadvantaged students needs to involve the following six considerations: Effective classroom management, teacher as a reading model, high levels of reading support, opportunities for collaboration, availability of engaging reading materials, and supporting the development of personal purposes for reading.

Effective classroom management. Both engaged and disengaged readers were concerned about the time that their teachers spent on classroom management. They also spoke about the disruption caused by a noisy classroom and expressed their disapproval of being interrupted in the midst of reading. Extrapolating from such responses, it seems that they consider a safe and quiet reading environment is essential for promoting reading engagement. The key feature of such classroom management is that it should focus on creating conditions for engagement as distinct from a single focus on correcting or managing discipline problems.

Teacher as reading role model. Teachers in this study reportedly seldom read when their students were reading; students believed that their teachers spent most of this time engaged in

disciplining students or in personal matters unrelated to their reading sessions. Our classroom observation corroborated this. Clearly, this inattention is a major shortfall in supporting reading engagement for disadvantaged students who have limited exposure to reading role models at home or elsewhere. Such role models are expected of their teachers whose display of interest in reading and sharing with students the enjoyment and new knowledge derived from it should form a critical part of pedagogical practices for promoting reading among disinterested readers. The notion of the teacher as reading model is a key finding and points to the need to know more about teachers as readers, both in and outside school.

Provision of high levels of support. Students in this study, especially the disengaged readers, indicated that their teachers did not often read with them or provide immediate support to their reading. In other words, these students were left alone to find their ways through a text. Given their below-average levels of literacy development as implied from the national test performances, it is not surprising that most give up easily if they encounter difficulties unassisted. The participants have reminded us that high levels of support might tip the balance in this scale toward disadvantaged students' more venturesome and positive engagement when reading.

Opportunities for collaboration. A significant percentage of engaged and disengaged readers saw and explained the benefits of collaborative reading. While group reading was available to them, participants considered that its organisation was tenuous and lacked direction. Opportunities for heterogeneous grouping and peer modeling might be added to goal-oriented management instructions for text mining and expansion of procedural and metacognitive skills to enthuse students about reading. Doing so may help students and their teachers to preempt the disruption associated with disorder that participants spoke of during their reading sessions as so demanding of their teachers' time and attention.

Engaging reading materials. Disengaged readers in this study voiced their concern about boredom with reading in school. To some extent, their reported boredom with reading could be attributed to the outdated and uninteresting books available in the classes we observed. Providing reading materials that interest the readers is a vital part of an engaging reading pedagogy capable of exterminating the "boredom" attribute currently at play among our disengaged participants.

Development of personal purposes. Compared to their engaged counterparts, intrinsic reasons to engage in reading were not a feature of the self-perceived motivation of disengaged readers. Our participants observed deficiencies in modeling and discussion about reading and missed opportunities for interaction with their teachers that if present with some direction for new reflection and change among disengaged readers might have better accommodated the development of personal purposes for giving reading a try that includes sticking with it.

7. Conclusion

Though this study we explored disadvantaged students' reading experiences and attempted to derive from what participants told us some direction worth further investigation in attempts to re-engage these students. We have learnt from listening to what students said about reading in school and about themselves and their teachers as readers. To reform effectively and to re-engage disadvantaged readers, a firm belief that every student can read and has the ability to read well when their needs are met is critical for viewing these students considerately, listening to them effectively, and avoiding a deficit perspective that apportions most of the blame to

students' lack of reading skills and motivation. "I am a good reader", as a majority of students in this study firmly believed, is the belief foundation for pursuing engaging reading pedagogies through listening to students' voices and utilizing such voices as a valuable resource for crafting pedagogical innovations.

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Development of an Instructional Model with the Cooperative Discipline Process for Developing Self-Discipline of Primary Education Level students



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Abstract

The purpose of this research is to develop an instructional model with cooperative discipline process for developing primary school students self-discipline. The application of Linda Albert's approach of cooperative discipline process and Bloom's theory of Affective Domain. The instructional model involves in four stages: 1) Instructional model development 2) Instructional model quality control 3) Instructional model test-using 4) Instructional model improvement. Instructional model with cooperative Discipline process for developing primary school students consist of five stages: 1) Principle; 2) Objective; 3) Contents; 4) Instructional process 5) Evaluation. There are 6 stages in the instructional process; 1. Knowing oneself 2. Preparing readiness 3. Enhancing Awareness 4. Activity operation 5. Finding self-value 6. Getting self-discipline Random sampling on population samples are the students of Pratom 4 (level 4) 2nd semester of 2555 academic year as sample group, District Office of Primary Education Samutprakarn District 2, Office of Primary Education Committee which are from Cluster Random sampling.

Keywords: Instructional Model , self-Discipline , Cooperative Discipline

1) Introduction

Her Royal Highness Princess Maha Chakri Sirindhorn delivers a congratulatory speech to the graduates of Ramkhamhaeng University about discipline that “There are two types of discipline – the first one is Rules and Regulation officially enacted be abide by all and the other is Self – discipline which is genuine and beneficial one. Self-discipline is formulated from personal judgment whether such behavioral deed is correct and fair, brings along progress and usefulness (HRH Princess Sirindhorn's speech given during Ramkhamhaeng University commencement) Duangduen Bhanthumnavin says that “self-discipline is the core of moral expression. One who has self – discipline has better self – control, doing good deed, help stopping and forbidding others from wrong – doings” (Duangduen Bhanthumnavin, 2523: 3)

Dhammapitaka cites that “Discipline is essential and very important in managing education as it would apply education in developing more flourishing human life” (Dhammapitaka, 2538B : 18) A research from Moral Center studies and comes up with ethical indicators. It discovers that there are 5 indicators with the urgent need of morality for Thai society in ethical surveillance such as, 1) Honesty, 2) Responsibility, 3) Sobriety, 4) Perseverance 5) Discipline. It is a social problem which needs cooperation in problem solving. Even children and teenagers are affected from the social change towards their behavior which getting more serious. Many primary school students are computer addicted, not pay attention in schooling and lack of responsibility, impatience and no self – discipline, inexperience in household work and openly copying western cultures (Uaporn Reungrakul, 2550 : 39). All parties are aware of the problems especially those education – bounded administrators. During educational reforming era, improving the quality of youngsters is fundamental to developing the nations in the future. The youth must be trained for better quality, with discipline and responsibility. According to National Education Act B.E. 2542 (2nd edition B.E. 2545) it indicates that with strong indication for the betterment of Thai people to achieving the perfection of physical, mental, intellectual, knowledgeable, moral and ethical bases to be able to share and live happily in the society (Ministry of Education; 2545 : 3)

Linda Albert’s Cooperative Discipline Process is the process of instruction and prevention of unwanted situation in order to enable students to have academic, social and psychological developments with the following approaches, such as : corrective strategy, support, and prevention for the effectiveness and instructional goal attainment, the promoting of good atmospheric learning, self – conceptualization, creating discipline collaboration starting from students, teachers, friends and parents and 5 stages :1. Identify the student’s behavior 2. Deal with the misbehavior immediately 3. Provide some encouragement 3c (Capable , Connect , Contribute) 4. Making partner along the way 5. A Potpourri of ideas to get students on your side

Bloom applies the theory of learning and basic psychology as the base in categorizing human behavior into 3 categories : intelligence, physique, spirit, and using this principle to categorize the objectives in education as it is called as Taxonomy of Educational objectives (Bloom, 1976 : 18) For Affective , it has classified the development in 5 phases. 1) Receiving of attending – it is environmentally beneficial to the learners. 2) Responding – is the learners’ reaction toward the arousal with behavioral response. 3) Value is the value creation of any particular item 4) Organization is the consideration and value collection after the learners have built up minor value judgment relating to any temptation with value system management 5) Characterization – in this phase, the previous level occurrence of thoughts, feelings and values would become individual’s behavior, qualification and characteristic.

Krathwohl, Bloom and Marcia (Krathwohl, Bloom and Masia. 1964 : 37) propose that any attention, altitude and self – discipline are the primary stage of Affective that can be developed for elementary school students. Therefore, for elementary school students self – discipline development, from the above – mentioned of conceptual learning of Linda Albert’s Cooperative discipline and Bloom theory of Affective learning development, the researcher is interested in applying the said conceptual framework for development of an instructional model with the cooperative discipline process for developing self-discipline of primary education level students

2) Research Questions

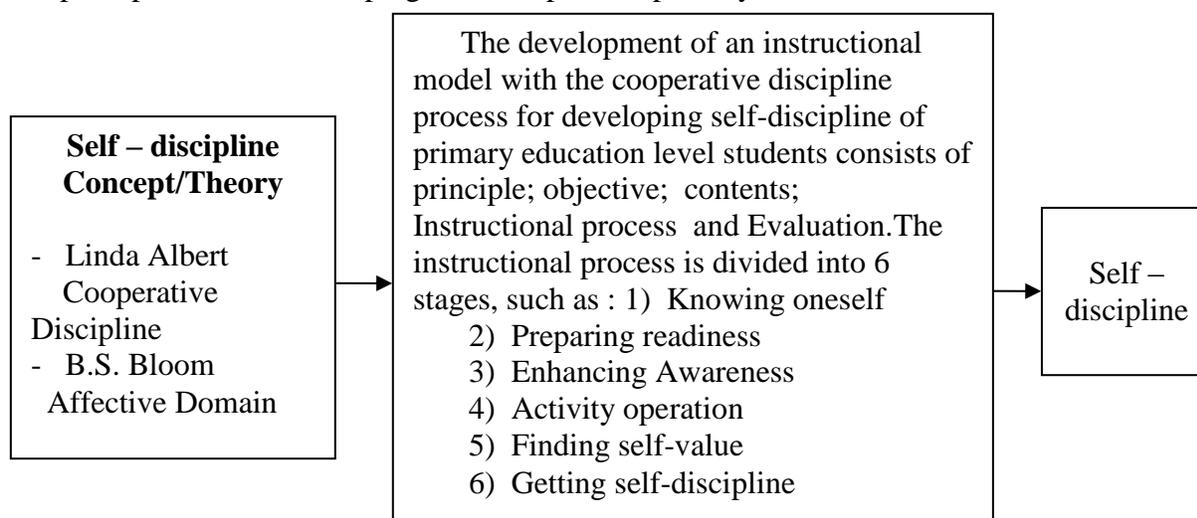
What are the principles, purposes, essence of learning and stages of instructional process and how to measure and evaluate the cooperative discipline in self – discipline instructional model for primary education level students.

3) Research Objective

The purpose of this research is to development of an instructional model with the cooperative discipline process for developing self-discipline of primary education level students

4) Research Conceptual Framework

The research on the development of an instructional model with the cooperative discipline process for developing self-discipline of primary education level students



5) Research Hypothesis

The researcher has set the hypothesis of the study as follow :

1. The efficiency of instructional model with the cooperative discipline process for developing self-discipline of primary education level students

6) Definition

The development of an instructional model with the cooperative discipline process for developing self-discipline of primary education level students means the development of instructional characteristics from Linda Alberts concept of cooperative discipline process for developing self – discipline and applying Bloom’s Theory of Affective for the development of self – discipline of primary school students which consists of : self – confidence; responsibility; patience, integrity, instructional arrangement consists of the following six stages.

1.) Knowing oneself – the students would self – assess by using various behavioral aspects. In reviewing own – behavior, is to check the behavior from assessment so that the students would know various aspects of their own behaviors share their idea whether or not to accept the result and take the result for students self – assessment.

2.) Preparing readiness – the building up of amicable atmosphere in learning sharing conversation, appreciating of operational activities, music for raising awareness, game and meditation.

3.) Enhancing Awareness , it makes the students aware of self – discipline comprising of 1) Self – confidence 2) responsibilities 3) patience 4) honesty with the following activities. Students learn from case study, tales, simulation, news, conferences, exchange point of views between students, students and teachers, summary of knowledge gain from seminars by using group process to consider the principle of thinking in their career.

4.) Activity operation , at this stage, students put their knowledge from previous stage of awareness in use which is assigned by their teachers as teamwork. Students perform as assigned. They require further information about their assigned task, prepare other materials and jointly work on the task under the close watch of the teachers

5.) Finding self-value – those students who discover their own capability form the successful joint activities. The success is from self – confidence, responsibility, patience and honesty. They discuss about their success upon work completion given complements and appreciation to further fulfill whatever is needed from the group assessment (by group’s members), then bring the results for their parents evaluation and criticism follow by groups showcasing.

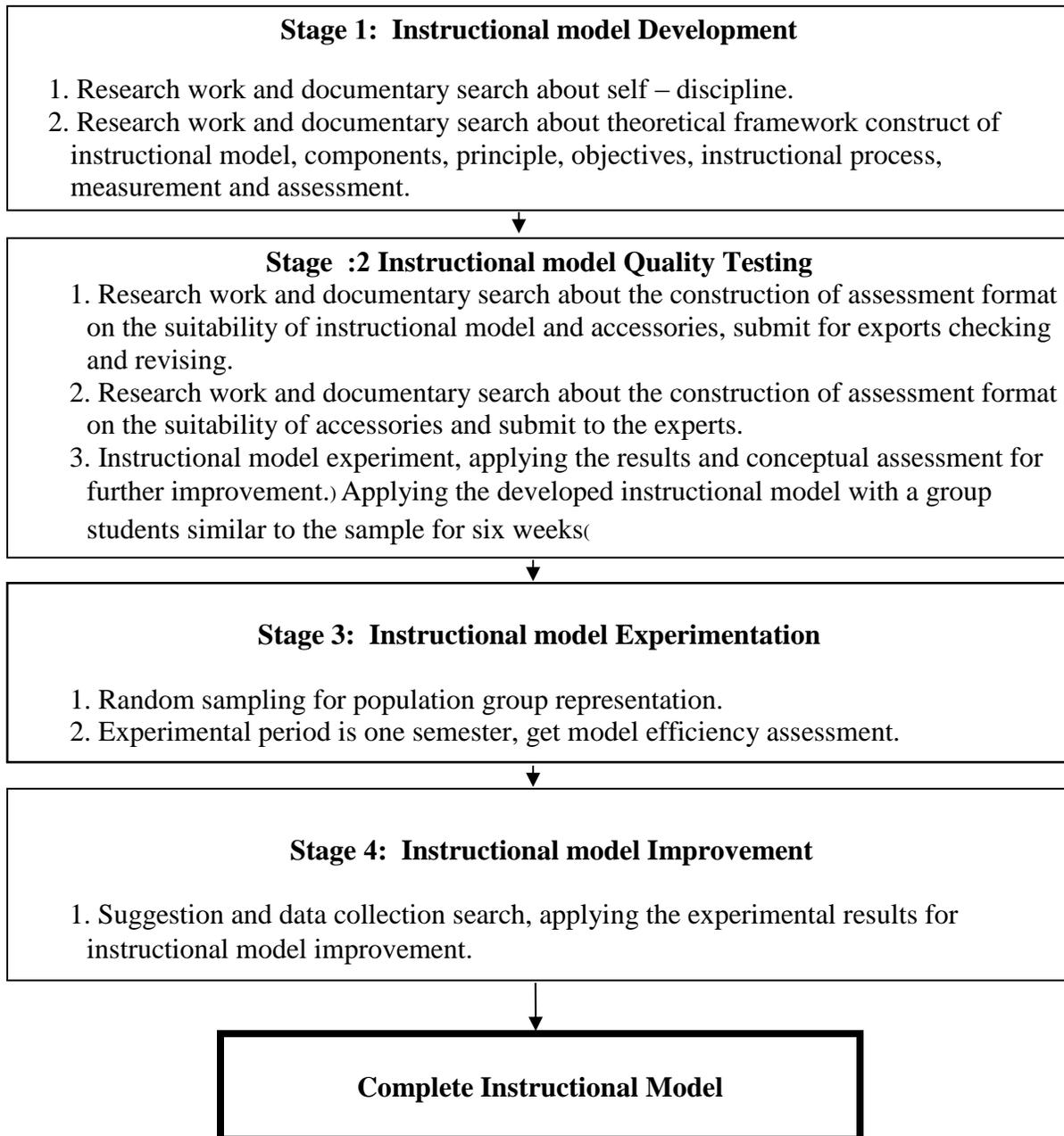
6.) Getting self-discipline – The reflection of students self – discipline by sharing common thoughts. The task successful factor is from self –confidence, responsibility, patience and integrity. The thoughts from the activities and idea reflection and put the pledge of self – discipline on record.

7) Research Methodology

The objectives of the research is to development of an instructional model with the cooperative discipline process for developing self-discipline of primary education level students, using the format of research and development in 4 stages.

1. Instructional model development
2. Instructional model Quality testing
3. Instructional model pre-using
4. Instructional model improvement

Diagram of Research Process



Phase 1 Instructional model development in 3 stages

1. Research work and documentary search about self – discipline to define the element of behavioral indicator and the guideline for instructional model development to developing self – discipline. The study of theory and related research, make analysis and data collection about self – discipline development, analysis definition and the element of behavioral indicator. The research analyzes the characteristic of self – discipline according organization and individual 13 concepts. It shows that the conceptual characteristic coincides with the research with confirming features in four stages in self – discipline development: self – confidence, responsibility, patience, and honesty.

The conceptual characteristic analysis, the order of self – discipline indicators are as follows:

- Rank 1. frequency score of 9 – Self confidence, Patience, Responsibility
- Rank 4. frequency score of 8 – Public rules & regulation followers
- Rank 5. frequency score of 6 – Honesty, Punctuality
- Rank 7. frequency score of 5 – Temperance & self – control, Leadership
- Rank 9. frequency score of 4 – Respect to others right
- Rank 10. frequency score of 3 – Rationale
- Rank 11. frequency score of 2 – Strong determination
- Rank 12. frequency score of 1 – Self – reliance, No anxiety Daredevil, Inner power sense, Controllable demand, Expectable of future occurrences, Future goal setting, Action consequences acceptability, For public sake, Strict routine performance, Knowledge pursuit, Attitude towards democracy, Generosity,

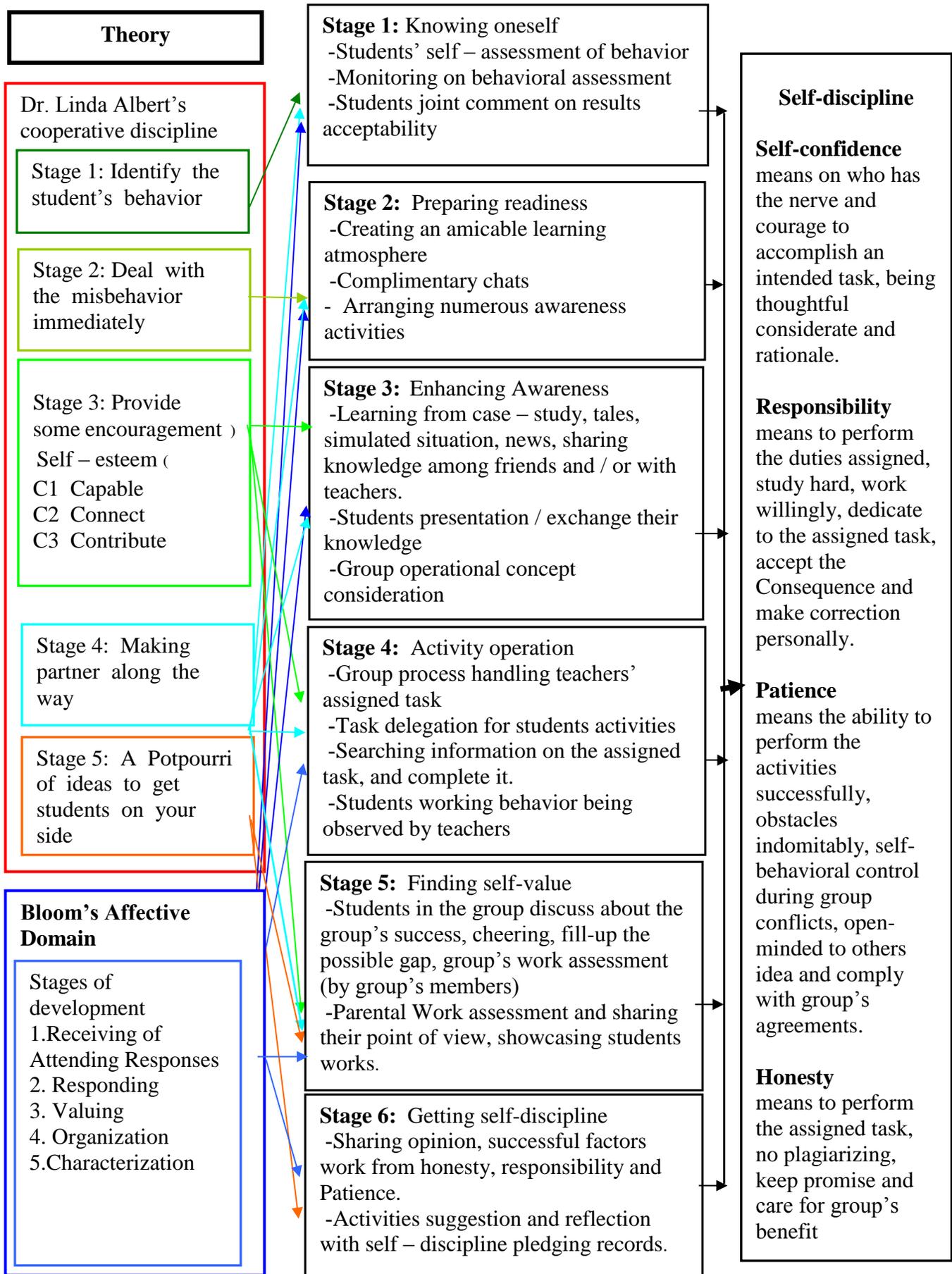
Thus, the concept of self – discipline development being deployed by the researcher by using the first rank in setting self – discipline characteristic, there are: self – confidence; patience; responsibility. For fourth rank with 8 frequency score that is public rules & regulation followers which is the defined self – discipline characteristic. Therefore, the fifth rank characteristic of honesty, as the self – discipline development indicator being used. There are : 1) self – confidence; 2) patience; 3) responsibility; 4) honesty. With Surapong Choodej (2542) research work, it supports the study of characteristic development of self – discipline people into two groups : The first group with seven : responsibility; self – confidence; honesty; punctuality; leadership : patience; strong determination. The second group also with seven : Temperance and public behavioral regulation; Enticement resistant; Self – confidence; High – responsibility; Controllable demand; Expectable future occurrences; Future goal setting. From Kalaya Suwanrod (2537) element analysis on the structure validity verification. Also from Duangjai Netroj (2527) analysis using the congruent groups and psychology variable for the determination of categorized accuracy reveals that the verified characteristic of accurate self discipline characteristic in five areas : responsibility; self – confidence; honesty; patience; leadership So, in this research, there are four characteristics : 1) Self – confidence, 2) Responsibility; 3) Patience; 4) Honesty. These are self – discipline development characteristics.

2. Research study on instructional model development theory and concept to developing instructional model for self – discipline development. Self – discipline development activity design by studying the concept of self – discipline, the theory self discipline development and taking Linda Albert concept of cooperative discipline, Bloom’s learning

concept, self – discipline development concept and students ethics and moral and the study of instructional model with special focus on affective domain, ethical and moral values, the principle, objective, instructional process and evaluation of effectiveness. The principle of self – discipline development identify the student’s behavior ,deal with the misbehavior immediately, provide some encouragement 3c (capable, connect ,contribute), making partner along the way, a Potpourri of ideas to get students on your side . The participation of self, teacher, friends and parents. According to Bloom’s affective domain, the acknowledgement of response, values creation, prioritizing the value, building the character, objective for developing self –discipline for elementary school students. There are 6 stages in instructional process : 1)Knowing oneself 2)Preparing readiness 3)Enhancing Awareness 4)Activity operation 5) Finding self-value 6)Getting self-discipline.

Self –discipline assessment measurement with related relationship as shown in diagram.

Diagram showing the relationship between the theory and instructional process



3. Instructional model constructs such as instructional plan, manual and self – discipline measurement.

For instructional planning, there are five units of Club learning activities, 18 hours study plan for experiment and control group, 18 hours study plan consist of key issues, objective, self – discipline characteristic, essence of learning, learning process, media/sources measurement and assessment.

For manual making, is the instructor teaching manual for self – discipline development model for elementary school students consists of principles, objectives, key issues, instructional process, measurement and assessment, instructor role, learning unit, plan and research references.

For self – discipline measurement, it is used to assess the students in experiment and control groups before and after to see the effectiveness of the developed instructional model, the construct of self – discipline measurement (pre – test) with 42 questions of multiple choice (4 choices) and same criteria in post test, being checked by the experts for text conformity for IOC (Item – Objective Congruence)

Phase 2 Instructional model quality Testing

1. Instructional model quality Testing , the results from a team of five experts in the area of suitability congruency, quality assessment tool for instructional model suitability with 5 level-scale evaluation for 16 items, The quality assessment results show that all items are with “most appropriate”. For instructional model congruent assessment by using IOC index of 10, the calculation of IOC, each index equals to 1. It means the instructional model is appropriate and all components meet IOC standard.

2. Instructional plan for experimental group and control group in quality – check. The five experts are checking on appropriateness and congruency. The tool for quality assessment on instructional appropriateness with scale in 5 levels, 10 items in appropriateness. The result reveals that all are appropriate with most appropriate. For congruent assessment in instructional model using 10 IOC, the value is between 0.8 -1. It is concluded that instructional plan meets appropriateness and IOC.

3. Applying the developed instructional model with a group of students similar to the sample for six weeks to determine the probability of the developed model, suitability of the tools, take the test result for improvement. The result shows it should improve on own identity with focus on specific character assessment, each level of activity with definite summary and allow additional time for students’ activity at level 5 and 6.

Phase 3 Instructional model Experimentation

Random sampling on population samples are the students of Pratom 4 (level 4) 2nd semester of 2555 academic year as sample group, District Office of Primary Education Samutprakarn District 2, Office of Primary Education Committee which are from Cluster Random sampling. The samplings are from the school with at least two rooms of primary school

grade 4 in Samutprakarn area. The first school is for pre – test and the second school is strictly for experiment by using Cluster Random to get sample group and control group.

1. Experimenting models for control group pretest – posttest design. The sample group is the students of primary grade 4, 2nd semesters of 2555 academic year the Office of National Primary Education District – 2 of Samutprakarn, County Board of Primary Education for one semester, For model quality assessment, the comparison of student’s self – discipline, the students are the experimental group prior and after school according to instructional model. The comparison of after school self – discipline are between the groups with the developed instructional model and the control group with normal teaching.

Phase 4 Instructional model improvements

Suggestion and data collection search, applying the experimental results for instructional model improvement.

Instructional model with cooperative Discipline process for developing primary school students consist of five stages: 1) Principle; 2) Objective; 3) Contents; 4) Instructional process 5) Evaluation. There are 6 stages in the instructional process; 1. Knowing oneself 2.Preparing readiness 3.Enhancing Awareness 4.Activity operation 5. Finding self-value 6.Getting self-discipline

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Trend of Thai Teacher Education in the Next Decade of the 21th Century: Teacher Professionalism vs Student Learning Quality

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Abstract

It was realized that Thailand's schools were never created to produce the highly motivated, independent thinkers and learners demanded by an information-based economy. This recognition contributed to the passage of a comprehensive national educational reform law in 1999, which is the National Education Act B.E. 2542 (1999). This paper enumerates the Thai recent TE critical issues chronologically. The critical content analysis method is inevitably employed for the derives of the rigor content analysis and future recommendation. The study found that the attempt of upgrading the quality of teacher education in Thailand as well as teacher status has been continuously and intensively exerted during recent years and this trend will be more illustrated in next decade evidenced by the successful 5-year teacher education curriculum, the act of teacher's salary increment , the job guaranteed in the "New Generation Teacher" and "Professional Teacher" project and the dreaming for 6-year teacher education curriculum project in 2011 of the ex-minister of Ministry of Education which consequently was faded by the "Professional Teacher" project in 2012 of the new cabinet ministers. These issues also points out the relationship between the discontinuity of some TE projects and volatility of Thai government. However, in order to provide the caution for future TE development of Thailand, the study lends itself the insight discussion on the 6-year teacher education and the increasing quality of teacher status versus the decreasing quality of students.

Key words: Teacher Education, Teacher Quality vs Student Quality

Introduction

Since the educational reform under National Education Act B.E. 2542, more than ten years ago, tens thousands millions of budget has been invested in the educational reform by the past government, the previous Prime Minister Vejjajiva. The breathtaking outcome of educational reform has emerged. Many related educational scholars come up with the consensus that the quality of education is not satisfactory. The literary of the Thais dropped. The fundamental development of the country such as mathematics, science and language slightly increased, however, the ability to think critically and synthesize does not increase at all. On the contrary, the tangible improvements or drastic changes go to the structure reform such as decentralization, the improved benefits, salaries, compensation, advancement opportunities of

teachers have witnessed due to the necessary alignment with the economically and socially changes in our world (Sangrung, 2011, August 3). That is to say, the quality of teacher in terms of their well beings is increasingly upgraded whereas the quality of students are showing downward trend. I would like to demonstrate how the quality of teacher in Thailand has been enhanced and in what ways are found to be pro and cons finally. Moreover, the future trend of teacher education will be studied in order to foresee the courses of the quality of teacher and students and their mutual development. This study can provide the self-actualization of teacher education quality in Thailand for the government leaders and associated educational planners to reconsider the outcome for immediate response of the problem to-be in the future regarding the quality of both teacher and students.

Next Decade Reform for Teachers' Quality Certification

The Second Decade of Education Reform (2009-2018)

According to the country report of Thailand by Derek (2010), four themes of the second decade reform 2009 – 2018 are to improve quality of new generation of the Thais, new generation teachers, new generation schools and new generation Management. In terms of the quality of new generation teachers, new teacher training, faculty members preparation, and educational personnel preparation systems are introduced and improved with following measures: to produce, develop, and utilize teachers, faculty members, and educational personnel systematically and accordingly to the needs of the users, to make the teaching profession attractive to graduates in other fields who wish to enter teaching profession, to link the training and preparation of vocational lecturers, higher education faculty, and educational personnel to lecturing competency and private sector needs. In terms of the development of teachers, faculty members, and educational personnel, there are measures: to link the criteria and the personnel evaluation system of teachers to their required teaching competency, to expedite the establishment of the development and promotion fund for teachers, faculty members, and educational personnel, and to introduce the school-based or the faculty-based staff development system that leads to student- centered learning approach.

In terms of the utilization of teachers, faculty members, and educational personnel, its measures are to return teacher to their classrooms by decreasing or eliminating their non-teaching loads, to adjust the current teaching load by stressing on the necessitated works required for teaching, and to introduce the new teacher salary scale (completely implemented). Furthermore, in terms of teaching license examination, there will be the establishment of the stratification of teaching license ticket which will be started by 2014 in three levels: early childhood teachers, secondary school teachers and subject teachers (Physics, Chemistry, English, Social Study, etc.) separately.

Recently, the policies of Ministry of Education on the teacher are the Teacher Channel policy which is a project serving to develop quality teachers and learning exchange center, and also the former Teacher Tutor policy which still keeps continue and on site. Moreover, policy of building teacher morale was the establishment of second 2011 Act of Teacher Funds and Accreditation for salary which was promulgated on March 30, 2011. Additionally there is the support and the promotion of teaching and knowledge about science and technology in response to the shortage of mathematics – sciences teachers (Office of Policy and Strategy, Office of the Permanent Secretary Ministry of Education, 2010).

2011 Year of Teacher Quality

Educational reform in second decades (B.E. 2552-2561), to have quality Thais, stimulates a teacher as an important mechanism as teachers play a key role in developing countries to achieve stable growth. Before the development of the country, the youth of the nation must be developed. Duty of teachers in the development of people is a heavy duty done with difficulty. "Teachers" is considered important in transferring knowledge and learning, instilling students the moral principles. The basic knowledge, ability and goals of each student through teaching in formal, non-formal and Informal Education system need to be taken an account so that students can apply knowledge to their future careers, provide income to families and pursuit career advancement (Office of the Education Council, 2011)

On January 14, 2011, The previous Prime Minister, Mr. Vejjajiva delivered a speech at the ceremony of "2011 The Year of Teacher Quality" that teacher quality is a current international research interest. The 2007's research study indicated that Thai teachers, especially secondary teachers work quite considerably overload compared to teachers in other countries. This study compared the number of students per teacher in the classroom. Our current class is quite large. Primary school class has average 36 students per room, high school may have more, whereas other comparable countries specify the size of the classrooms about 15-25 students per class. So does the hours of instruction, if compared with countries of Organization for Cooperation and Economic Development (OECD), it shows that the average teaching hour of Thai teachers ranges from 925 to 1100 hours per year , whereas other countries may be approximately 548 to 818 hours per year. The heavy teaching load would affect the performance of teacher which is well known problems and limitations. Thai teachers have experienced this critical issue for long time. These things need to be resolved in order to contribute to teacher quality, quality of education, and the quality of the students (Rohisatien, 2011, January).

New Teacher's Salary Structure

The National Education Act B.E. 2542 (1999) stipulates guidelines for supervising, monitoring and developing the education profession, by establishing an organization for the professions of teachers, educational institution administrators and education administrators, which shall have the powers and duties to set professional standards; issue and revoke professional licenses; oversee and monitor to ensure the compliance with the professional standards and ethics. In addition, the Teachers and Educational Personnel Council Act B.E. 2546 (2003), as a law governing education profession, regards the education profession as a licensed profession, consisting of:

1. Teachers;
2. Educational institution administrators;
3. Education administrators;
4. Other licensed professions as specified in the ministerial regulations.

The fact that the education profession is regarded as a licensed profession shall guarantee and provide protection for clients to obtain quality education, as well as developing and upgrading the professional standards (The Teachers' Council of Thailand, 2011). According to the Teachers and Personnel Act of B.E. 2546 (2003), there is six-scale teacher classification framework based on academic status, ranging from assistant teachers, experienced teachers,

higher experienced teachers and expert teachers, to specialized teachers. According to the 2nd Teacher and Educational Personnel’s Salary Act B.E. 2554 (2011) which stipulates the raising salary for all teacher levels for the purpose of upgrading the status of Thai teachers. An assistant teacher salary is

Salary	THB	THB	THB	THB	THB	THB
Maximum	16,840	29,700	36,020	50,550	59,770	66,480
Minimum	8,700	11,930	15,410	18,910	23,230	28,550
Temporary minimum	7,940	8,130	12,530	12,530	-	-
Level	Assistant teacher	Teacher	Experienced Teacher	Higher Experienced teacher	Expert teacher	Specialized teacher

Source: Office of the Teacher Civil Service and Educational Personnel Commission, 2011

“New Generation Teacher” Project of B.E. 2552-2554 (2009-2011)

In December 8, 2009, the new teacher project was approved by the cabinet of the Ministry of Education with the budget 4,235 million baht to produce 30,000 teachers from the academic year 2553-2562 (2009-2018) because in the next 10 years there will be two hundred thousand retiring teachers and a full effort of preparing the new lot of quality teachers is consequently achieved. For instance, a pilot project in 2009 recruited 1,867 students through the interview in the Faculty of Education, who were about to study in the fifth year in 2010 with the job guarantee but no scholarship provided. The applicant of the project must have a grade point average throughout the course (GPAX) of not less than 3.00, with not less than 3.00 in majoring subjects and not less than 3.00 in teacher subjects. They have to work at assigned schools, depending on what three schools they chose respectively in the applicant form after graduation, for two times period of students’ year they joined the project. If they fail to comply the employment criteria, they need to be fined. So does the New Generation Teacher project of 2011, the above criteria in recruitment also was applied in the project of 2011 and it still has no scholarship granted; the scholarship budget for developing student potential are offered to each institution, but only job guaranteed. The course criteria and regulations for institutions participating in offering 5-year teacher course must be approved by the Office of Higher Education Commission and the Office of National Education Standards and Quality Assessment (Public Organization) ONESQA.

However, the problem of the New Generation project is ensued in 2012 that the number of graduate students this year from the project which is approximately 2,300 outnumbers 1,500 positions the OBEC allocates. Many graduate students of the project in preceded years are floated with no available positions.

In the year 2011, a change of government caused the halt of this project which later was replaced by the new project, so-called “Professional Teacher.”

6-year Teacher Curriculum in B.E. 2011 (4-year Bachelor + 2-year Master degree)

A 4-year undergraduate teacher program was modified to a 5-year undergraduate course. The reason is that students have too little academic learning (3 ½ years) and little work experience (half year). Actually the 6-year program was proposed. But whatever reason, 5-year teacher program has been implemented since B. E. 2547 (2004) while many of the course in many faculties of teacher education had not been prompt yet. The 2,500 scholarships were provided on that year and one year only.

The teacher recently has two patterns: 5-year bachelor's degree and a teacher's curriculum for other bachelor degree with one year teacher certificate program (4+1). This teacher Certification Program requires not less than 24 credits with training experience for 12 credits, which take two semesters for total 36 credits. Within less than a year, the students who have never studied teacher have to enter to the training since the beginning semester, and go back immediately to study at their own institution for 12 credits in each semester which means students need to take at least four courses of intensive studying and training in each semester. This rush period affects the effectiveness of teacher productivity. To ensure a quality education of teacher, consequently, in 2011 academic year, every teacher certification program needs one more semester, from original two semesters to three semesters which take totally one year a half. This new standard practice began in June 2011 onwards. Secretary Sumej Yamnun said that the educational institutions which provide the new teacher certification program must be participating in the provision of 5-year undergraduate courses in any field of education and technical education. The teacher certification curriculum must be approved by the Office of Higher Education Commission and the Office of National Education Standards and Quality Assessment (Public Organization) ONESQA. Furthermore, there are still the scholarships for the selected candidates of this program available. The criteria of the scholarship are as follow: having a grade point average throughout the course (GPAX) is not less than 3.00 in a majoring subject, having accumulation of at least 3.00 in teaching profession subjects, having good volunteering (through the interview) and having the test scores of English equivalent of TOEFL Paper-base at 450 points. However, the graduates must work in an assigned government schools for two times their period of scholarship. Without complying the agreed criteria, the scholarship recipients must return money two times the sum of scholarship (New Teacher Certification Extension Period, 2011, May 3).

Moreover, there are two standards of teachers which are not comparable. One is the bachelor's degree in teacher (5 years) and another is 4-year bachelor in other fields with master's degree in teacher (i.e. (4+2= 6 years). That is, in school there will be the two systems of teachers who teach the same subject, but have different qualifications and standards. This reason was originally leading to the prospect 6-year undergraduate teacher curriculum as the same standard of teachers as 4+2 year course (other fields).

Previously, the new 6-year teacher program was estimated to implement within the academic year 2011. Because of the new election on July 3, 2011 and the lack of promptness in terms of faculty teachers, this 6-year teacher curriculum must be postponed to next academic year 2012. There are two new standards of the school's new two-year master degree and six-year bachelor +master degree. The philosophy of new two-year master degree is to develop the expertise of teacher in particular subjects served for the high school and vocational school level. The number of required credits for the new two-year master degree is 36 credits. The master

thesis credits are 12 credits. During the first year, students must study the professional development for teachers, basic research and research for improving teaching and learning. During the second year, they should study theory with practice in learning and teaching experience in their major subjects, along with doing a research.

Besides, the philosophy of six-year undergraduate+ master degree is to cultivate a teacher from elementary level up to the high education level in order to enhance their expertise in majoring subject. The number of credits required is 156 credits. The basic research and research to improve teaching and learning is required in the first four years, along with studying theory with practice during their studying. Training and teaching experience in the field of major is required in the 5th year, along with doing the research.

The lecturers should be an expert in the Ph. D. or equivalent with the academic position at least vice-professor in the field or a relate field. They must have at least five years in teaching experience (Two standards of New Generation Teacher, 2011, January 21).

Professor Pantavej, the President of Suansununta Rajchabhat University, stated that from the admissions for the academic year 2011 it reveals that many students are increasingly interested in studying the Faculty of Education. There were candidates enrolling up to 7,000 people, but the faculty is able to receive only 230 people, most of which applied in fields of early childhood education, Thai language and English language. He further said that the reason of this trend may be the government having announced the teacher shortages of 20,000 to 30,000 people in the near future. In addition to teachers and students are guaranteed to have a job, the scholarship provision remarkably encourages children to turn to teacher education. Most applicants in this year are mainly from the provinces with the intention of commitment as a teacher who really wants to return to teach in their provinces. The study illustrates the teacher trend in the future that in 3-5 years, Thailand will have a quality teacher with the spirit of a real teacher (More excellent students turn to teacher education, 2011, March 22).

Finally, after a whole year controversy of this project, it then was buried by the political upheaval in Thailand. No longer after the new Ministry of Education was on board since the end of 2011, the 6-year project was aborted for the reason that almost of the TE offering institutions have no readiness in terms of the 6-year curriculum standard, the number of lecturers in each educational major who gain Ph.D, at least one of whom must hold the academic stand as an Associate Professor. (“Cancel 6-year curriculum”, 2012, July 18)

However, the new ministry government officially announced the new project in 2012, so-called “Professional Teacher” to replace the previous New Generation Teacher for the reason the its name underline the demeaning of old teachers perceived as the old generation. What’s more, the selection process of teacher-to-be students into the project which grants the job security but no scholarship subsidy is the drawing a lot which will be discussed further in next topic.

“The Professional Teacher” Project in B.E. 2012

After a change of government in the year 2554, the New Generation Teacher project was halted. The new government under the new cabinet on May 1, 2012 agreed to change the name of the New Generation Teacher project to the Professional Teacher project; due to the fact that the name of the former carries the insulting meaning for an old teachers, the latter was entitled.), the course of which focuses on the practical and intensive training especially in subject fields and

remote areas short of teachers. There are the committee of professional teacher project management and the committee of student and institution recruitment supervising the project. The goal of the project is to produce five teacher generations from the 2011-2015 academic year, including 30,000 people with Bachelor degree (5-years course) and graduate Diploma in Teaching Profession. Mr. Suchart Thada Thamrongvech, the cabinet minister of MOE revealed that the project criteria was amended for the job guaranteed allotment which will be given 35 per cent: 30 percent for the Professional Teacher project and 5 percent for other scholarship programs such as a program in producing teachers who are gifted in science and mathematics etc. Another 25 percent ratio will be allotted for the temporary employed teachers of OBEC (Office of the Basic Education Commission) and the rest 40 percent of teachers need to take the competitive examination. The OBEC recently reveals that 5,000 vacant positions are expected. That is to say, the 30 percent of the Professional Teacher project is 1,500 positions allowed.

Generally, the applicant for “the Professional Teacher” project is required a teacher to-be students in 5-year bachelor program of Education who are currently the fourth year students in B.E. 2554 (2011) in a required field. They must possess a good personality and moral sensibility in teacher profession. An applicant must have an at least three years (from 1st- 3rd year) accumulated 3.00 average grade in each whole course (GPAX), whole major subjects and whole teacher profession subjects. Furthermore, upon graduation, they must have a grade point average throughout the course (GPAX) of not less than 3.00, with not less than 3.00 in majoring subjects and not less than 3.00 in teacher subjects to be ready for service in assigned position and area. Otherwise, they will be disqualified.

For the year 2012, 2,323 students from 89 institutions enrolled in the project. Those students were announced the eligibility for participating in the lottery (drawing a lot). Only 829 students have been recruited from total 2,323; 750 of whom are allotted for the Office of Basic Education Commission (OBEC) and the Office of Vocational Education Commission (VEC). The ministers of MOE agreed with the lottery as they believe it is the most transparent measure and fair to all students. They are confident that this approach will certainly not cause a complaints and the lottery will be completed within one day. If students do not get justice, it can be appealed immediately in order to solve the problem. (Pending 6-year teacher education”, 2012, July 19).

Discussion

Strengths and Weakness of dreaming 6-year Teacher Curriculum

In terms of the strengths, Bachelor 6-year combined degree program must meet the standards of the master degree program. That is, in addition to undergraduate and master's courses on general teacher education in specific subjects, the 6 year undergraduate degree teacher course must focus on academic work, thesis or published paper with the TOEFL 500 points or an equivalent exam scores. Of course, the teacher's six-year combined bachelor's degree is a standard teacher system as normally undergraduate students in other fields with master degree take 6 years totally. But the 5-year undergraduate teacher program students with the master degree takes up to totally 7 years. This leads to the explicit inequality and disadvantage of the latter compared to the former. The management efficiency of teacher utilization will be increased. When teachers need to take a leave for pursuing their master degree, schools are always short of teachers and teaching load always impose on other teachers. Therefore, 6 year

teacher program will reduce this problem. The quality of teacher education improved, for the merging of Master's degree course is designed. This causes the more oriented in specific courses or major subjects such as master of English, mathematics as students will continuously study in one original major area throughout the six year program. In particular, not only the ability in specific subjects (majors) and but English language are also enhanced because the master program require well prepared English language in order to comply with the universality and the government declared English as a second language.

However, in terms of weakness of 6-year Teacher Curriculum, Bachelor degree spending a period of up to 6 years of study which is so long. Even through the scholarship policies for prospective candidates of 6-year curriculum has been announced since the 5-year curriculum era, the Government should continuously and firmly protect and ensure these policies. However, in reality the scholarship is unable to cover all students, but the work guaranteed policy should be expansively ensured for all prospect graduates. Another critical problem is the readiness and shortage of qualified instructors. Most of institutions have a limited number of instructors and some of whom belong to below-standard academic stand required in teaching a prospective master degree student.

High Teacher Quality VS Low Student Quality

Sangrung (2011, August 3) pointed out that the interests of teachers and educational personnel are raised up excessively with the higher academic progress it is the higher compensation teacher will gain. But it should have been concerned that while teachers have more benefits, the student quality should have been increased accordingly. The overall reform is likely to take the assessment or evaluation of teacher as substituted for the word “*welfare*” of a teacher. So the assessment or evaluation system of teacher seems to deviate from the academic goal of bringing up the quality of education to the welfare of teacher which is underlying the compromise in teacher evaluation of personnel management organization. And teachers tend to weigh on that “*welfare*” so much that the actual student quality was taken for granted. Overall, the reform of the teacher focused on the “*form*” rather than the “*essence*.” The important mechanism to bring education reform to the desired goal is teachers and school administrators. Educational reform has invested a huge budget to develop a teacher by mainly focusing on developing the knowledge and skills in the teaching profession, but lack developing a mechanism to motivate them to bring their skill into practice; in other words, it is lack of the better way to build awareness of responsibility (accountability) consciousness of those involved, teachers, administrators and educational personnel in providing quality education to students.

In addition, low educational leadership, lack of motivation and stimulus, lack of supervision and monitoring are what makes the lack of teachers committed to improve the quality of their students. To enhance the efficiency of teachers and administrators to have a sense of responsibility to develop mechanisms and strengthen management is to stimulate teachers to have their own development plan which is resulted from the analysis of teaching children and problem with the plan to solve the problem. This plan must be submitted to the principal or administrative supervisors who will support the development and provide the incentives for their accountability by offering them the fair opportunities, benefits etc. And school administrators should have a plan presented to the supervisors and subordinators in the same manner as a commitment to how to improve the quality of students. This is a true educational reform. The development of these systems must be linked with the progress in academic standing of teacher.

It is difficult to keep quality teachers at the same time to lessen their motivation. Thus, the development with the commitment of the teachers themselves and the positive incentives in their professional progress will make teacher manage teaching and learning for the real quality of students. However, the teacher academic assessment system should be strengthened. Teacher innovation or teacher academic studies must be developed to reflect the quality-oriented of students. The areas of personnel management and academic assessment system in regard to teacher accreditation system, teacher academic performance evaluation system, and teacher innovation, research and program evaluation substantially result in the quality of students. In other words, the academic preparation processes may be weighted less important than the implementation of the quality of the real learning of kids. Teacher, thus, need the technical support.

Conclusion

The study found that the attempt of upgrading the quality of teacher in Thailand as well as teacher status has been continuously exerted for more years and this trend will be more illustrated in next decade evidenced by the new salary increment or even dreaming 6-year teacher education system and the Professional Teacher project which provides the job guarantee. These all have been pulling a lot of competent students to enter to faculties of teacher education since the beginning of 5-year teacher education program. Plus, the teacher certificate program period is extended from 2 to 3 semesters which means teacher-to-be students learn more in teacher courses and intensive teaching practicum. These are the landmarks of new trend of teacher education development in Thailand even though some particular projects such as 6-year curriculum or even the scholarship for to-be teacher students are finally only a surmise due to the political change and substandard in a number of professors. Nonetheless, the increased quality of teacher has not shown any positive development of student's quality in Thailand. Thus the increased teacher quality should take student quality of learning into account. Their assigned studies or documentation granted by accreditation or promotion criteria should in practice relate and reflect the in-classroom oriented application, which actually helps increase students' competency and learning skill acquisition. In other words, the traditional overload works of teachers which detach them from teaching and student-teacher relation in classroom are supposed to be reduced.

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Use of Electronic Resources by Postgraduate Students



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Abstract

As more and more universities seek to tie the best qualities of teaching and research to become research universities, they are searching for strategies and resources to promote the rich research culture. One of these is to integrate advances in information technologies into learning environments. Electronic resources supported by information technology are a key to research production. Postgraduate students, recognized as key producers of research in universities, are those who need good quality of accessibility of electronic resources in their study and in producing their theses. This paper offers an alternative insight on postgraduate students' perceptions on the role of the electronic resources in facilitating their research. Data was collected from sixty-one postgraduate students majoring in English in three universities (Khon Kaen University, Suranaree University of Technology and Mahasarakham University) in Thailand. An online survey was used to identify state of electronic resource using and issues that were important to postgraduates in relation to academic information searching. The findings show that teaching culture has been moved to learning culture where the information technology is changing delivery of education. Issues related to use of electronic resources including plagiarism, obstacles, patterns of use, and factors that play a role in deciding to use the electronic resources to seek information were also found. The findings will be useful to thesis advisors, teachers and librarians in providing proper electronic resources and training to postgraduate students for their research.

Keywords: electronic resources, postgraduate students, thesis writing, information technology

Introduction

Research community has undergone an incredible revolution during these years, as a result of technology-driven applications. The use of electronic resources via computers and the Internet network has led to a huge and high quality research production. Consequently, this new dimension of writing research has become a powerful service contributing to numerous intellectual products produced by higher education institutions. Electronic resource refers to databases, CD – ROM, electronic mails, Online Public Access Catalogues (OPAC) and internet

browsing. Access to electronic books and journals; various databases and search engines depends on the Internet which is the most important part.

As academic community especially in the universities has been greatly affected by electronic resource, the way teaching and learning is carried out including the ways the research is conducted has been changed. Using computer network enhances a researcher to access various types of useful and relevant information (e.g., full text, digital contents of local and distant libraries). It has been accepted and is equally recognized as retrieving information from printed materials. There are in fact a great number of differences between electronic and printed resource. However the most stunning fact falls into how the information from the electronic is used.

In spite of the ease of use of this powerful resource and its benefits to postgraduate program in many universities, little is known about, firstly how effective students use it. Secondly, there could be varying factors affecting the effectiveness of the use including poor Internet signal of universities, high expenses of ICT equipment, and limited knowledge in using due to lack of proper training (Fatoki, 2004). These factors could lead to positive or negative attitudes toward use of electronic resource. Thirdly, positive attitude is a significant feature for successful use and integration of Information Technology in learning (Christensen, 1998). In addition motivation that enhances use of electronic resource has to be studied so that we can adjust the service to suit their needs (Agarwal & Prasad, 1997). Thus this study focuses on factors affecting use of electronic resource of postgraduate students as the main objective. The researcher also aims at discussing on other related issues regarding the topic.

Expected outcomes

It is expected that knowing students' behavior, understanding, and needs in using electronic resources is important in helping the university, MA programs and librarians to develop and assess pedagogy designed to help students to write their theses more effectively.

Literature review

The electronic resource has become an important tool for postgraduate students to have a better participation and engagement in current information society. Use of electronic resource enables students to find, build up, expand, analyze and present information. Students have exploited electronic resource to model situations as well as to solve problems. The high speed Internet allows speedy access to enormous source of information where students can justify their ideas and gain experiences from a wide range of people, communities and cultures. Furthermore, they can work in partnership and exchange information on a wider scale.

Electronic Information Sources are products of information and communication technologies and they have been found relevant to the learning and research process in universities. It is admired as a key tool to provide alternative possibilities for education (Casal, 2007). White (2010) states that the availability of electronic resource has changed traditional context of postgraduate education to be more interactive. By using electronic resource, students can manage time better. This advantage is an attractive feature that transforms teaching-learning and research process (Langlois, 1997). Moreover, wireless networks, internet, search engines, databases, websites and web 2.0 technologies effectively enables students to access and distribute electronic information like e-books and e-journals (Oduwole, 2004).

On the other hand, effective uses of electronic resources in general are being hampered by varying factors including, technical problems, and demographics of users.

It was found that age is a factor found to correlate with computers and use of electronic resources (Laguna & Babcock, 1997.) Simply put, younger students are more familiar with computers and tend to work better on the computer task. They added that younger generations can make faster and more accurate decision on computer task. The finding is useful particularly to the current study as there is a variety of age range among postgraduate students.

Gender has been studied and was found by Ford and others (2001) that females come across more difficulty finding information online. They have to put more effort than male students to feel competent and comfortable using the internet. Several researchers (Adeoti-Adekeye, 1997; Fatoki, 2004) revealed that factors including poor telecommunication infrastructures are significant barriers in using electronic resources. Regarding user demographics data, Bassi and Camble (2011) found that female students use the internet less frequently than males and to make use of a less varied set of internet application. So it is feasible to indicate that age is also an important factor in establishing computers skills and makes a different in using of electronic resources. As a result, Waldman (2003) concluded that males seem to enjoy browsing on the internet better. However this researcher reminded that when exploring in great depth, use of the Internet among males seems to involve with enjoyment while female tend to only use it for work related purpose.

Besides gender, there is other data set that affects their use of electronic resources including attitude. Christensen (1998) submitted that use of electronic resources can be promoted or spoiled by attitude towards the tool of users. Naturally, positive attitude leads to successful use and integration of Information Technology in learning. Moreover, this factor has also been found a key to better perceptions and rates of adoption and extent of utilization of Information Technology (Agarwal & Prasad, 1997).

In addition, there are also other related variables in use of electronic resources of postgraduate students. Of these, the educational intuitions and their libraries are the significant ones. The electronic resources service has created pressure on the university and its library due to the ability to provide reliable and effective learning environment. The libraries particularly concern about the provision of necessary guidance to end users. As suggested by Fatoki (2004), libraries should work collaborate with faculties to support the use of Information Technology. This infers that it is essential to provide core competencies of information literacy to improve abilities involved in identifying need, accessing needed information, evaluating, managing and applying information, and understanding the legal, social, and ethical aspects of information use of users.

Scope of the Study

This study examined the factors that influence the use of electronic information sources and other related issues concerning this among postgraduate students. The study covered three universities in the Northeast Thailand, namely, Khon Kean University, Mahasarakham University and Suranaree University of Technology.

Objectives of the Study

The main objectives of the study were to

- analyze the current situations of use of electronic resources for thesis writing of post graduate students
- examine factors affecting use of electronic resources of post graduate students
- evaluate post graduate student's knowledge and awareness on plagiarism in relation to use of electronic resources.

Research Methodology

This research project adopted a survey method, collecting qualitative data sets. An online survey was used to identify issues that were important to postgraduates in relation to information searching, information management and the support and advice that is available to assist with these research skills. Furthermore, particular attention was placed on the level of awareness regarding plagiarism. The web-based survey is a self-built employing Google App.

Findings

The most outstanding part of the finding is there were no strong differences among universities in terms of general information, general use and specific use of electronic resources and other related issues. Responses obtained from each section from different universities were in the same trend. For the sake of presentation, there is no need to show the results of each university separately.

In total, the online survey gathered data from 61 postgraduate students (15 males/46 females) from the three target universities. The first section revealed their demographic data. 42.6% of the respondents aged between 25-29 years old. Most of the students reported that they had a computer or a laptop at home and accessed to the electronic resources from home. Those who use the electronic in the campuses had wifi connection, so they primarily access the Internet from almost everywhere within the campuses.

The second section surveyed their behavior in using the electronic resources. It was found that over half of these students spent between 1-5 hours every day in using electronic resources from their accommodation. The Internet came up as the most popular tool (96%) used for postgraduate study. Only 1.6% used e-journal for the same purpose. The electronic resource was mainly used for assignment rather than for thesis writing.

When asked to choose the three most relevant choices regarding knowledge and strategies in using electronic learning resources, it is obviously observed from pie chart (Figure 1) that about 98.4 % of students learn this from self-study while 78.7% and 59% of them learns how to use electronic learning resources from colleagues and teachers/research advisor respectively. The pie chart shows that the option 'Formal training' was chosen by only 8 students while option 'Others' came up the last with only 1 student. This indicates that the options were common methods frequently used by the students.

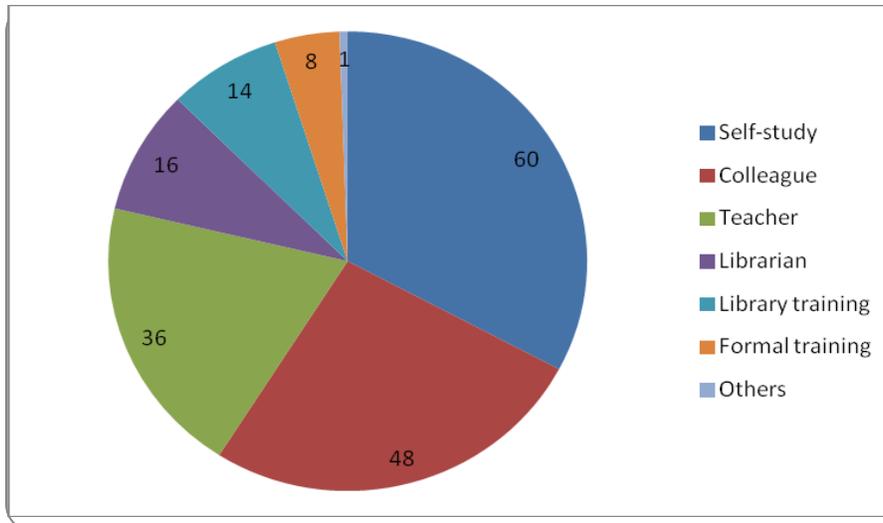


Figure 1 The top-three options how students learned to use electronic resources

Post graduate students seemed to have more confidence in computer literacy skills than their English skills. Findings revealed that the majority of the students had difficulty in using electronic resource due to access to database, source selection and poor internet connection. The early finding section has presented that over half of the students accessed to electronic resource from home, it is therefore assumed that they had problem in connecting to the university database or commercial database such as *Springerlink* when accessing it from home. It was suggested that all the three universities should also provide training in selecting relevant sources that fit well with students' work.

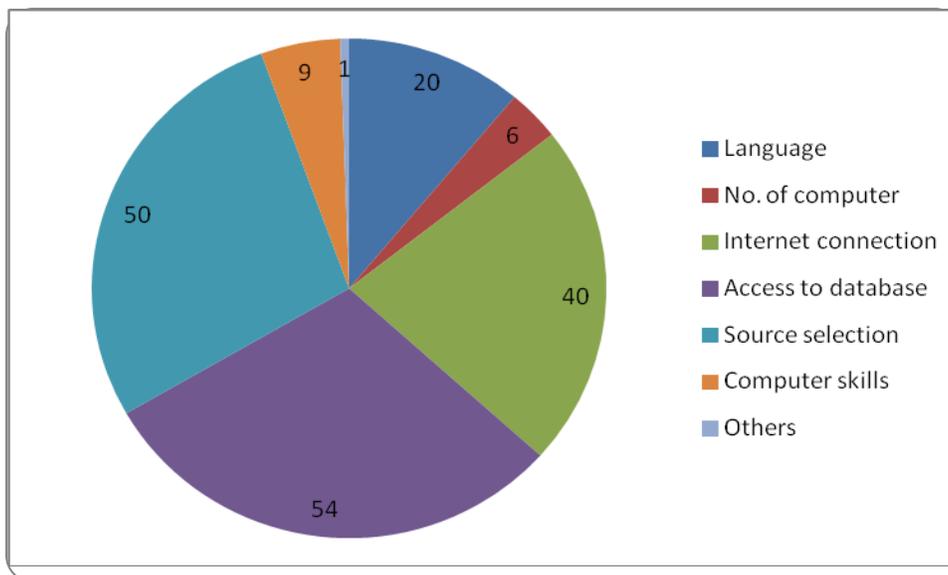


Figure 2 The top-three problems related to use of electronic resources

In the third section of the survey, specific use of electronic resources was examined. The findings revealed that two third of the respondents used electronic resource to complete

assignment. Similar portions of these users (40% and 40%) used the resources because of their freshness and excitement features.

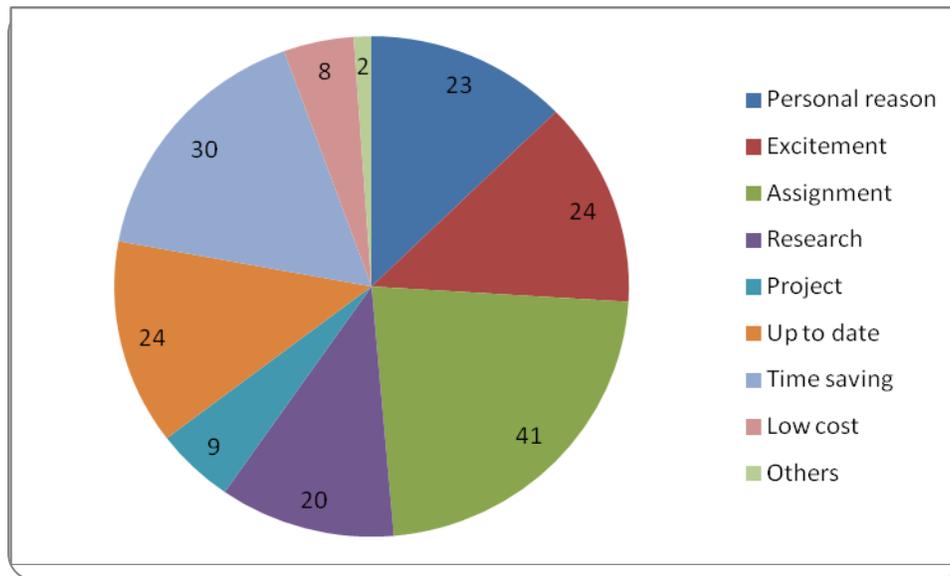


Figure 3 The top-three motivation in using electronic resources

The last section of the survey revealed issues of plagiarism from using of electronic resources. It was found that most students (85.20%) were aware of plagiarism by always trying to search for the original texts and sources rather than to use the secondary sources. Over half of the respondents claimed that they made citation and references for all texts or ideas taken from outside sources.

However, about half of the students tend to conduct plagiarism by avoiding citing and referencing to the original when they were in rush. Moreover they fabricated the source to fit their work and failed to give proper reference. Three quarter of students admitted that they had limitation in English. Still there were only half of the respondents perceived the importance of honesty in academic writing and tried to keep the meaning of the original texts in their work.

Table 1 Understanding and perception towards plagiarism

Statement	Yes	No
1. I make citation and references for all texts or ideas of outside sources.	68.90%	31.10%
2. Sometimes I make changes to some part of the selection to avoid citing the source.	55.00%	45.00%
3. My teachers/supervisors may not notice a small selection I have copied into my work.	13.10%	86.90%
4. I often have problems trying to relate the cited selection to fit my work.	73.80%	26.20%
5. My English writing skill is not as good as the original.	77.00%	23.00%

Statement	Yes	No
6. I want to cite the source; however, I don't know how to.	78.70%	21.30%
7. I have learned about citing and referencing from my teachers/advisor.	59.00%	41.00%
8. When citing, the closest to the original is the best.	50.80%	49.20%
9. I often cite and reference sources if I am not in a rush.	73.80%	26.20%
10. I always search for the original rather than use the secondary source.	85.20%	14.80%

Discussion

The data from the survey revealed that nearly all participants report that they use the Internet for personal, work, and school related reasons. Most participants have computing facilities as well as an Internet connection available to them at home. This could be a relief for universities that there is not much need for them to provide a large number of computers with Internet connection for postgraduate students. The universities should, on the other hand, allocate funds to help improve library resources and services. The library should prepare high quality that relevant to the areas of interest of users. For example, the most common types of sites visited for research related are databases with journal articles or books. Using electronic resources is greatly a necessity to postgraduates in several ways.

- the 24/7 availability
- the ability to work from any location
- the one-stop service, all in one place
- the diversity of resources

It was obvious that library resources are an essential part of the research procedure for these students because they accessed to this knowledge resources almost all the steps of their postgraduate study.

It appeared that the enormous amounts of information that the search comes up with are sometimes overwhelming, and students had difficulty in sorting through all this information and discriminate what is relevant and what is not relevant to their needs. Specific training should be designed to help these students to use the electronic resource more effectively.

The most important issue came up with use of electronic resource in postgraduate students is plagiarism (Thompson, 2005). It was observed that some of these students have incorrect attitudes and perception towards plagiarism. Unfortunately issues on student attitudes towards plagiarism and towards copyright violations, knowledge and understanding about plagiarism, and time concerns are strong reasons making students plagiarize. It has also been agreed (Khampusaen, 2013; Park, 2003) that lack of understanding of what constitutes plagiarism is a significant motivation to plagiarize. It is also reasonable to put that advanced internet technology has contributed to the increasing plagiarism. The same problem was found less in the past as

people needed to go the libraries and read books as part of their written work production. Currently, many students plagiarize by using the internet as a tool. From this scenario, it is an obligation for the university, teachers, and the libraries to collaboratively assist these students to deal with their academic literacy. Teachers may need to help them to gain appropriate skills in academic writing to address plagiarism and that they can develop their own writing identities. It is considered necessary to discuss on academic integrity in the classroom. Teachers should be encouraged to create a climate of involvement and interest rather than of detection and punishment. Teachers may also need to teach the skills of summarising and paraphrasing in relation to using texts and ideas from outside sources to their postgraduate students to avoid plagiarism.

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Creativity and Multimedia for Elementary and High School Teachers



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Abstract

The world has been through various transformations and digital culture is a reality. Digital Media are remodeling our life experience, and deeply changing our leisure habits, our work routine and also our ways of learning. The school has been frequently indifferent to these transformations, making teacher education a real challenge. During the last years, various programmes for the development of teachers in the Brazilian public school have been created by the Brazilian government. There is incentive for the development of actions that should take the teachers in elementary and high school education back to the university environment, whether to do courses, or to develop research along with the higher education teachers. In this dynamic and context, two courses created and developed in a higher education institution are the focus of this article, which is a result of theoretical and practical studies, and aims at stimulating a reflection concerning the development of teachers for the use of information and communication technologies and multimedia in a creative and critical manner. Workshops were offered during 4 months and 10 students from High School and 18 teachers from public schools took part. Among some of the initial results, it is possible to notice a contradiction in the teachers' desire to participate in the courses alongside the lack of available time, the result of an overloaded schedule, as well as the urgent need and desire of a critical appropriation of the digital media, making them more than a resource in teaching-learning.

Keywords: teacher education, digital media, Information and communication technologies, Pedagogic Practices

Introduction

In the last years the world has been through various transformations and digital culture is a reality. Digital Media are remodeling our life experience, and deeply changing our leisure habits, our work routine and also our ways of learning. In Brazil the school is frequently indifferent to these transformations, making teacher education a real challenge.

Apart from the challenge of insertion of schools and teacher education programs in the digital culture, there is another problem – the lack of teachers in Brazil. This lack is perceived in all the areas and mainly in the area of the exact sciences, in which there is a deficit of mathematic, physics and chemistry teachers, of 170 thousand.

Added to this, in spite of the fact that the Brazilian federal government campaigns in the media publicize that to be a teacher is to hold “a profession that can change the country” and “build a more developed Brazil”, Ministério da Educação e Cultura [MEC] (<http://sejaumprofessor.mec.gov.br/>), the teaching career has been losing prestige and every day there are less people interested.

The lack of interest for teaching has been noticed in recent research, such as that carried out by Leme (2012), that shows that in the Licensure Courses in Mathematics and Physics at the University of São Paulo (USP), approximately 50% of the students do not show an interest for teaching in the respective areas. In the same education institution, in the Pedagogy course, 30% of the students stated that they do not want to become teachers or have doubts about becoming one. The issues that were revealed as being more influential in the not choosing of the career are linked to the current image of the teaching profession and of the schools (bad condition in the schools and lack of social prestige, including low remuneration).

The Brazilian government has been struggling to make the teaching career more attractive and with better quality. In July of 2007, a law was approved, and this law hands over to the Brazilian Federal Agency for the Support and Evaluation of Graduate Education (CAPES), the assignment of inducing and fomenting initial and continued development for teachers in basic education. CAPES is a Brazilian organ created in 1951, and since then, it has been dedicated, almost exclusively, up to 2007, to the foment and assessment of the National System of Post-Graduation (SNPG) in the country, being responsible, since 1981, for the preparation of the *stricto sensu* Post-Graduate National Plan (PNPG), which, in its last version, covers the period of 2011/2020.

During the last years, various programs for the development of teachers in the Brazilian public school have been created by the Brazilian government. There is incentive for the development of actions that should take the teachers in elementary and high school education back to the university environment, whether to do courses, or to develop research along with the higher education teachers.

In the scope of these efforts, a program called “New Talents” was launched in 2010 (CAPES, 2010), which finances the realization of extracurricular activities in universities for teachers and students from basic education, during the period of public school vacation or at a time which would not interfere with frequency at school.

An important requirement of the program is that the activities should emphasize what Capes calls “innovating spaces”, such as university premises, laboratories and advanced centers for study and research, museums, public and private enterprises, in order to connect the school to society.

The Projects and the courses

In this perspective, some projects are being developed with the purpose of using the Media and the information and technology education (ICT) critically and creatively. Part of the

projects consist of the design of two courses created and developed in a higher education institution. They were the result of studies, and aim at stimulating a reflection concerning the development of teachers for the use of multimedia and the ICT in a creative and critical manner. The courses were carried out at the Federal University of the Triângulo Mineiro (UFMT), and students and teachers from elementary and high public schools took part. Workshops and distance classes were offered during 4 months and 10 students from the first and third years of High School and 18 teachers in the areas of Science, Portuguese, History, English, Mathematics, Physics, and Physical Education from public schools in took part.

The projects are based mainly on the idea that, generally, it is possible to observe that the media and the digital ICT have caused great impact in practically all the segments of our society, of our lives, and above all, in the development of scientific knowledge and in the advances of science. However, in Education, the presence of these technologies is not very significant and their potential is not much explored. It is not possible to observe, in the processes of teaching and learning, from Elementary to Higher Education, the same impact and transformation visibly identified in other segments, such as in the administrative processes and in the services of enterprises (Almeida & Valente, 2012).

In spite of Brazilians being adherent to and are world leaders in the indexes of adoption of the use of social webs in their lives, with 86% of the Brazilians connected to internet using social webs (Jornal Estado de São Paulo, 2010), their use in teaching institutions is still little used, or frequently used without thinking about the innovative, creative and transforming possibilities that they can offer. Remembering that we innovate in order to supply needs that require new answers and that when we reflect on actions in education, it is always necessary to direct our thoughts and reflections to what type of students we want to develop, to the people that we need in order to advance the transformation of our society. It is also necessary to call attention to the manner, the ‘how’ these technologies are used in education or in the pedagogic practices. The manner of using them is what will be fundamental in order to advance innovation in the classroom or even in education in a general manner (Prata-Linhares, 2012).

The initiatives being taken by UFMT go back to the “World Declaration concerning Education for Everyone”, drawn up by UNESCO and approved during the world conference carried out in Jomtien, Thailand, in March 1990. (Siqueira, 2005).

The text elects basic education in the world as a priority, to provide an answer to the elementary learning needs. In practice this means teaching the abilities of reading, writing, calculating, abilities to express orally and solve problems, as well as the specific subjects that include “abilities, values and attitudes”, and which vary from period to period and according to the characteristics of local culture.

Despite regional diversities, the Jomtien document declares that, in every situation, education must ensure the acquisition of different kinds of knowledge “(...) necessary so that human beings may survive, develop their potentialities completely, live and work with dignity, take part in development fully, improve life quality, make well founded decisions and continue learning.” (United Nations Organization for Education, Science and Culture [UNESCO], 1990).

In the courses developed we carry a necessary preoccupation concerning the critical use of the media. Thus, we use a term which is commonly found in official documents in the educational field, the term “media-education” (and its variables, among which are education, media literacy, education for media), which is becoming more popular in books,

articles, and academic talks and pages of non-government organizations on Internet. Generally, it refers to educational processes which have as their purpose to guide people of different ages and social groups to be able to understand and use the media critically, which implies knowledge of the nature of the messages, their production techniques and social and cultural impacts.

In 2011, UNESCO published the document “Media and Information Literacy Curriculum for Teachers” (Carolyn *et al.* 2011) that meets this needs and in 2013 a Portuguese version of the document was also published (Carolyn *et al.* 2013).

This document along with the document ICT competency standards for teachers (UNESCO, 2008), are important referentials of developed projects, described in this article.

As a general rule, the curricular referential focuses on the development of consciousness concerning how we use the ICT and media for work, leisure, teaching and learning. In this context, media-education and the creative and critical use of ICT are considered an instrument to build knowledge societies, promote freedom of expression and universal access to information.

In this perspective two courses were created as a part of research projects that aims at investigating the repertoire of High School teachers and students concerning the media, and the way in which they learn contents and concepts related to this area. They also focus on how to empower young people to access, evaluate and use digital media do strengthen citizenship.

The general purpose of the courses was to develop pedagogic activities that would promote the critical use of the media and ICT, the exercise of citizenship and that they should enhance the multimodal reading and writing abilities, in extracurricular activities. In order to make real this purpose, workshops that would blend reading and writing exercises using text, sound and image in the production of reports in the format of pocket videos, with the support of pedagogic materials made up of printed handouts, presentations in slides and videos, were carried out with High School teachers and students.

Some results and some considerations

The results of the activities carried out in the courses were analyzed using three data sources: the production of the participants, notes taken by the researchers in a field diary and answers to a questionnaire applied at the end of the last workshop, to the students as well as the teachers. The habits in the use of media, what they had considered easier and more difficult to learn, how they evaluated the possibility of integrating concepts of media-education in the school activities and a space for free manifestations, were investigated in this questionnaire.

Table 3 – Categories for analysis of the results of the workshops

ABILITY	DESCRIPTION
Manipulation of digital tools	Ability for creating accounts in sites that offer web 2.0 tools for the production and publication of the content .
Coding and decoding of multimodal messages	Ability for identifying techniques of production
Critical analysis	Ability to identify representations, points of view, emphasis and exclusions in a message, identifying

Relating to the use of web 2.0, students and teachers seemed to have a similar repertoire. Thus, for example, all of them were accustomed to having access to the YouTube site, but only to watch videos. No participant had a channel nor had published a video before the workshops. The young people feel stimulated to learn to use a new tool and they show a tendency to use their intuition to discover how things work. They also seem to be more at ease to learn by attempt and error. The teachers prefer to have a methodic step-by-step, and are constantly questioning themselves how they would act in the classroom to deal with the errors and problems that inevitably appear, without allowing the class to “turn into chaos”.

Talking about the ability to manipulate the elements of video language, whether for reading or for production, the group of teachers showed more resourcefulness in the tasks. In the field diary we registered the fact that the students were shy, insecure and spoke out their opinions with a lot of difficulty, and the teachers seemed not to have patience to memorize the names of the plans and fill in the forms of activities, although they had talked animatedly about the subject, according to registers made in the diary.

Our experience suggests that it is not true that the teachers are resistant to the use of new media. We registered that they repeat emphatically that they don't have objective means to continue working as they have been doing, in a classroom with 40 students, classes with the duration of 50 minutes and 10 computers to a school, with no technical support to solve problems inherent to the use of technologies.

Finally, concerning the demonstration of abilities for critical analysis, the results suggest that the experience was much more significant for the students than for the teachers. The students registered that the workshops had been a unique experience in their lives, because they were able to “use their reasoning and creativity in activities that that were not tiring”.

For the group of teachers, to identify the author's intentions, to discuss representations in dispute or the use of signs to create a specific meaning did not seem to be such a novelty. They emphasized the practicality of the workshops and the potential that the reading and writing in video exercises have to improve the quality of classes, although they maintain that they don't have objective means to do so in the schools in which they work, because there is lack of adequate space, equipment and technical support.

Queried about what was easier or more difficult to learn, teachers and students differed in their answers. While the students thought it was more difficult to write scripts, and speak looking at the camera, the teachers thought it was more difficult to edit videos, insert sound effects and publish content in the cloud. For the teachers, the easiest task was to write in the blog, and for the students it was to take and publish photos and edit videos.

Another important aspect to be highlighted is the contradiction between the teachers' desire to take part in such courses, alongside the lack of available time, the result of an overloaded schedule. One of the courses offered was not concluded, due to the heavy schedule of the teachers, who most of the time, worked in more than one school in order to have a better financial situation.

These aspects related to lack of adequate infra-structure in the schools and the low remuneration of the teachers, leads us to conclude the text returning to the beginning of our

article, in which we mention the necessity of valorization of the teaching career, especially in Brazil. This implies better working conditions, pay and social prestige.

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Science Camp in Parks?: Obstacles and Possibilities



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Abstract

The best way to increase students' interest in science is by using teaching methods that appeal to the curiosity and creativity that characterize all children. Science can be related to the lives of all students and it is essential to prepare them for the transition to adulthood and for membership in the 21st century. Science education can help students learn about the physical environments in which they live and develop a multicultural worldview of scientific phenomena. Participation in science camp is one way to facilitate such development.

The objectives of this study were to: 1) survey all national and forest parks in the northern provinces of Thailand to ascertain their environmental terrain and biodiversity, 2) categorize the parks based on accessibility and diverse environmental characteristics, which could be essential in enhancing the students' learning of the major science subjects, and 3) select the most suitable park as the site to hold a science camp for elementary students with or without disabilities.

*During 2011-12, the researchers surveys of national parks in four provinces of upper northern Thailand were conducted in order to determine their suitability for a science camp, including convenience of access, safety, appropriateness for activities, allotted time, and services provided by the park in organizing the camp. The following selection criteria were used physics chemistry biology geology astronomy and social activities. **The Phae Meuang Phi Forest Park***

in Phrae Province was selected as the most suitable for an elementary students' science camp. Additional significant findings are discussed in the paper.

Keywords: Science Camp, Activities in Parks

Learning science not only give students science knowledge, but also it provides science process skills for the students as well as the students' scientific attitude (Laohapaibool : 1999). Science camp is an important activity that enhances students to construct their own knowledge, practice scientific skills, and support their scientific attitude (Seang-Xuto, 2009). Moreover, when we take the students to National Park to have an opportunity to expose natures and cultures, they will not only enjoy the activities without knowing that they are actually learning, but also they gain knowledge from the places they have gone to. However, the activities has to be suitable for students' knowledge and cognitive level, which relevant to learning theory of Jean Piaget (Charles : 1978). He describes the learning abilities of students in different ages and conforming to the "learning by doing" approach of John Dewey. Both theories emphasis on student to have actual experience and group work in order to help enhance physical, emotional, social, and cognitive development. Group activities will enhance students to practice self-problem solving skills, thinking skills, inquiry skills together. The biggest benefits of those skills are encouraging students to be able to apply their knowledge, which is essential to prepare them for the transition to adulthood and for membership in the 21st century (Bellanca&Brandt :2010) in daily life.

Objectives

1. Survey all national and forest parks in four northern provinces of Thailand to ascertain their environmental terrain and biodiversity.
2. Categorize the parks based on their accessibility and diverse environmental characteristics which could be essential in enhancing the students' learning of the major science subjects.
3. Select the most suitable park as the site to hold a science camp for elementary school students with or without disabilities.

Theoretical Framework

The framework for this study was built on the learning theory of Jean Piaget, which describes the learning abilities of students of different ages.

Charles (1978) and Thongthaworn (1987) had review Piaget's cognitive development theory which consist of five stages.

1. Sensorimotor Operation (Age 0 - 2 years) --During this development period, children learn by using sensation through concrete media. Babies will learn by basic sensation, movement, function of the objects, and respond to different environments. When a child reaches one year of age he will respond faster to the stimulus objects.

2. Preconceptual Operation (Age 2 - 4 years) --Children at this ages are still egocentric, however they develop better in language, concept, creative, and illustration.

3. The Intuitive Operation (Age 4-7 years) --Children at these ages will have prompt reaction to their senses and no reason. They will not understand some logic such as water conservation.

4. Concrete Operation (Age 7-11 year) --Children have more rational thoughts of different principles, however they still cannot solve abstract problem.

5. Formal Operation (Age 11-15 year) – This stage the children are able to solve abstract problem. They have hypothesis in solving problem and are able to develop method of solving problems with logic.

This calls for the organization of science camp activities selected for their level of difficulty regarding scientific content and conforming to the “learning by doing” approach of John Dewey. Again, when children are center of learning, they have an opportunity to do activities on their own, acquire their own knowledge, do data organization, and do data summarization. In working as a group, children learn democratic way, have autonomy in learning, collaboration, and research from different resources other than just in classroom. Additionally, this way will encourage intrinsic motivation and self-confident in learning.

This requires that the design of activities be directed at experimentation and actual practice, as well as being fun.

Definition of terms

Site of local knowledge & technology is defined as a location where knowledge is found in a local area which can be accessed and studied on one’s own and covers an area sufficiently large for activities and staying overnight, e.g. national park.

Science camp is a collection of activities and hands-on experiences directed at gaining scientific knowledge by young students, which cannot be conducted in the classroom but takes place at a designated site. Students participate in enjoyable activities that are interspersed with scientific knowledge, skills, processes, and attitudes in a continuous manner. The activities are expected to result in student understanding, awareness, and valuing of science and its adaptation in their daily lives.

Science camp activities include science knowledge-based activities in different disciplines and provide space for having fun. The number, size, and nature of the activities will depend on time, location, and the selected body of scientific knowledge.

Scientific content means the scientific body of knowledge in different disciplines, including: physics, chemistry, biology, geology, astronomy, and related areas.

Methodology

Initially, surveys of national parks in four provinces of upper northern Thailand were conducted in order to determine their suitability for a science camp, including convenience of access, safety, appropriateness for activities, allotted time, and services provided by the park in organizing the camp. The following selection criteria were used:

- Physics activities: water - for waterfalls there must be opportunities to observe the velocity of water movement, turbidity and clarity of water, areas with strong daytime sunlight in order to conduct activities focused on light.
- Chemistry activities: water sites allowing the study of acidity and baseness of water, plants with flowers of various colors [if the camp is held when plants are flowering], rocks or soil with evidence of erosion by rain, evidence of dissolving and changes of pH.

- Biology activities: diversity of plant life, insects or wildlife at equivalent or differing heights above sea level; dwellings of flora and fauna, e.g. bats, beetles, and riverside plant life.
- Geology activities: mountains, caves, and hot springs.
- Astronomy activities: open areas for the night time observation of stars.
- Social activities: culture and environment; local communities with history, and traditional wisdom

For example, the Phae Meuang Phi Forest Park: during the day there are areas receiving substantial sunlight, making it suitable for physics activities involving florescence and light; significant biodiversity, appropriate for biology activities; soil eroded by rain water and wind and soil pole suitable for geology; erosion by rainfall resulting in pH changes; wide open spaces for astronomical observation; and a historical record of the area and its people to facilitate social activities.

Results and Conclusions

The findings of the surveys of national and forest parks in four provinces in the upper north of Thailand [Chiangrai, Nan, Chiangmai, and Phrae] revealed several suitable locations for science camps and various activities, as shown in Tables 1-11 below.

Table 1 National parks surveyed in Chiangrai Province

Order	Name of National Park	Suitability for science camp activities					
		Physics	Chemistry	Biology	Geology	Astronomy	Sociology
1	Khunjae National Park	-	-	✓	✓	✓	-
2	Doiluang National Park	-	-	✓	✓	✓	-
3	Lamnamkok National Park	-	-	✓	✓	✓	-

Table 1 shows that all three national parks are suitable for science camp, because these three parks' area are flat and good for activities arrangement, good environment for safety, and easy to access.

Table 2 All 27 forest parks in Chiangrai Province

Order	Name of Forest Park
1	Char Panpee Forest Park
2	Doi Gad Pee Forest Park
3	Doi Phra Bat Forest Park
4	Thum Pa Lae Forest Park
5	Tham Luang-Khun Nam Nang Non Forest Park
6	Namtok Khun Nam Yab Forest Park
7	Namtok Don Sila-Phangam Forest Park
8	Namtok Tad Khwan Forest Park
9	Namtok Tad Sawan Forest Park
10	Namtok Tad Sairung Forest Park
11	Namtok Mi-O-Chor-Dael Forest Park

Order	Name of Forest Park
12	Namtok Mae Tho Forest Park
13	Namtok Mae Salong Forest Park
14	Namtok Wang Tharn Tong Forest Park
15	Namtok Sri Chomphu Forest Park
16	Namtok Hioy Kang Pla Forest Park
17	Namtok Hioy Tad Tong Forest Park
18	Namtok Hioy Nam Oon Forest Park
19	Namtok Huai Mae Sak Forest Park
20	Doi Haomaekom Forest Park
21	Phaya Phiphak Forest Park
22	Phu Chom Daow Forest Park
23	Phu Cheephe Forest Park
24	Rim Kong Forest Park
25	San Pha Phaya Phrai Forest Park
26	Hioy Saryman Forest Park
27	Hioy Nam Chang Forest Park

Table 3 The 5 forest parks in Chiangrai Province suitable for a science camp

Order	Name of Forest Park	Suitability for science camp activities					
		Physics	Chemistry	Biology	Geology	Astronomy	Sociology
1	Doi Phra Bat Forest Park	-	-	✓	✓	✓	✓
2	Tham Luang-Khun Nam Nang Non Forest Park	✓	✓	✓	✓	✓	✓
3	Namtok Tad Khwan Forest Park	✓	-	✓	✓	✓	-
4	Namtok Tad Sairung Forest Park	✓	-	✓	✓	✓	-
5	Namtok Huai Mae Sak Forest Park	-	-	✓	✓	✓	-

Table 3 shows 5 of 27 forest parks where are suitable to activities arrangement for science camp because they are easy to access in the parks and able to well activity arrangement with high safety.

Table 4 National parks surveyed in Nan Province

Order	Name of National Park
1	Khun Nan National Park
2	Khun Sathan National Park
3	Doiphuka National Park
4	Thumsakern National Park
5	Nanthaburi National Park
6	Mae Charim National Park
7	Sri Nan National Park

Table 5 The 5 national parks in Nan Province suitable for a science camp

Order	Name of National Park	Suitability for science camp activities					
		Physics	Chemistry	Biology	Geology	Astronomy	Sociology
1	Khun Nan National Park	✓	-	✓	✓	✓	✓
2	Doiphuka National Park	✓	-	✓	✓	✓	✓
3	Nanthaburi National Park	✓	-	✓	✓	✓	-
4	Mae Charim National Park	✓	✓	✓	✓	✓	-
5	Sri Nan National Park	-	-	✓	✓	✓	-

Table 5 shows 5 of 7 National parks that suitable for doing science camp because most of the areas are flat and easy to access with safety in traveling. The other two parks are difficult to access.

Table 6 The single forest park in Nan Province

Order	Name of Forest Park	Suitability for science camp activities					
		Physics	Chemistry	Biology	Geology	Astronomy	Sociology
1	Thum pha toob Forest Park	✓	✓	✓	✓	-	✓

Table 6 indicates only one Forest Park in Nan Province that suitable to do science camp because it is easy to access.

Table 7 The 12 national parks in Chiangai Province

Order	Name of National Park	Suitability for science camp activities					
		Physics	Chemistry	Biology	Geology	Astronomy	Sociology
1	Doi Weang Pha National Park	-	-	✓	✓	-	-
2	Doi Inthanon National Park	✓	✓	✓	✓	✓	✓
3	Pha Dang National Park	-	✓	✓	✓	-	✓
4	Doi Pha Hom Pog National Park	-	-	✓	✓	✓	✓
5	Sri Lanna National Park	-	-	✓	✓	✓	✓
6	Hau Nam Dang National Park	✓	✓	✓	✓	✓	-
7	Khun Karn National Park	-	-	✓	✓	-	-
8	Op Luang National Park	✓	-	✓	✓	✓	✓
9	Doi Suthep-Pui National Park	✓	✓	✓	✓	✓	✓
10	Mae Takhrail National Park	✓	✓	✓	✓	✓	✓
11	Mae Tho National Park	-	-	✓	✓	✓	-
12	Mae Wang National Park	✓	✓	✓	-	-	-

Table 7 shows 12 national parks in Chiang Mai Province are suitable for a science camp. The national park areas are flat, easy to arrange activities, and high safety. However, in accessing the parks may be rough with steep roads.

Table 8 The single forest park in Chiang Mai Province

Order	Name of Forest Park	Suitability for science camp activities					
		Physics	Chemistry	Biology	Geology	Astronomy	Sociology
1	Namtok Buatong and Namphu Chetsi Forest Park	✓	✓	✓	✓	✓	-

Table 8 indicates the single forest park in Chiang Mai Province is suitable for a science camp. The Forest Park has the variety areas for activities, such as water fall and hot spring.

Table 9 The 3 national parks in Phrae Province

Order	Name of National Park	Suitability for science camp activities					
		Physics	Chemistry	Biology	Geology	Astronomy	Sociology
1	Doi Phaklong National Park	-	✓	✓	✓	✓	-
2	Mae Yom National Park	✓	✓	✓	✓	✓	✓
3	Wiang Kosai	✓	✓	✓	✓	✓	✓

	National Park						
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Table 9 The 3 national parks in Phrae Province are suitable for a science camp because they are easy to access in the parks and able to well activity arrangement with high safety.

Table 10 The 3 forest parks in Phrae Province

Order	Name of Forest Park
1	Phae Mueang Phi Forest Park
2	Doi Mon Keaw Mon Deng Forest Park
3	Pha Luk Mean Forest Park

Table 11 The single forest park in Phrae Province suitable for a science camp

Order	Name of Forest Park	Suitability for science camp activities					
		Physics	Chemistry	Biology	Geology	Astronomy	Sociology
1	Phae Mueang Phi Forest Park	✓	✓	✓	✓	✓	✓

Tables 1-11 show that each study site offers a body of knowledge which can be used in a science camp in different ways. For example in physics, hot springs provide knowledge on energy and movement; in chemistry, waterfalls provide knowledge on acidity and baseness and erosion; in biology, there is knowledge on biodiversity of local fauna and flora; in geology, there is knowledge about categories and characteristics of rocks and minerals; in astronomy, there is knowledge about the study of stars; and in social areas, there is knowledge on local lifestyles and history as they relate to principles of science. Moreover, in addition to studies in science at various levels, these sites also provide opportunities to develop science process skills, and scientific attitudes among learners, as well as social and emotional development.

Discussion

1. From the surveys of national and forest parks undertaken, it was found that most have general similarities; however, each site shows individual characteristics. For example, both Thum Pha Toob forest park in Nan Province and Tham Luang-Khun Nam Nang Non forest park in Chiang Rai Province have mountains and caves for wide geological studies.
2. The most appropriate time for the science camp is during the winter or summer, because the rainy season is too humid and otherwise negatively affects many activities; in addition, the rain makes access to some sites difficult. However, it should be noted that the different seasons offer different plant life and climate and, thus, different knowledge.
3. Similar activities can also provide a variety of experiences and knowledge. For example, the results of testing for acidity and baseness may differ among the many sites, such as between water from waterfalls or hot springs, or even rainwater erosion. This will require the further survey of individual sites before organizing activities.
4. After select the learning resource to organize science camp, in designing the activities needs to concern about children's age according to learning theory of Jean Piaget in that no matter how difficult the content, the children learn best when they do the activities on their own. Also working in group as "learning by doing" approach of John Dewey will enhance children with content knowledge, process skills, and scientific skills, meanwhile children are able to

adapt their knowledge to daily life and to prepare them for the transition to adulthood and for membership in the 21st century (Bellanca, J. & Brandt, R., 2010).

Recommendations

1. Teachers should survey the prospective locations before conducting the science camp in order to facilitate proper planning in accordance with the potential of the students participating. The following should be considered: specific activities, the knowledge to be transferred, safety, and accommodations.
2. The camps should be clearly coordinated with responsible local officials in order to gain their support in various areas.
3. Practice exercises should be conducted with the teachers involved prior to the camps, including planning, students participating, travel, accommodations, and rules & agreements during the camp.

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The Transition from Social Networks to Gamification for Education: Knowledge Level of Thai Higher Education Students



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Abstract

This research article reviews ‘Gamification’ and other new technology strategies for educational purposes. The objective of this research paper is to report a result of a case study in a selected university in Bangkok. Gamification is the concept of applying game-design thinking to non-game applications to make them more enjoyable and engaging. Gamification has been recommended as a future innovation in student support which may replace Social Networks. Gamification will influence learning management methods and learning material design. The challenge of using gamification relates to educational psychology and the guidance provided by educational technology. This case study was conducted during a seminar in February 2013. Forty university students participated in this case study. Twenty-nine students remained involved in the research, with 23 respondents returning a completed survey form and six students being formally interviewed. Three groups of university students participated in this research consisting of bachelor, master’s and doctoral degree students (60.9%, 21.7% and 17.4% respectively). All students came from the Faculty of Industry Education, Department of Educational Technology in Vocational and Technical Education. There were more male participants (60.9%) than female participants (39.1%). The questionnaire mainly focused in eliciting the levels of knowledge towards eight technology keywords: Infographic, Gamification, Mixed Reality, Social Networks, Cloud Computing, Augmented Reality, Learning Management System (LMS) and Personal Learning Environment (PLE). The research showed that almost all participants (91.3%) were familiar with Social Networks. Also most of the participants (82.6%) were very interested in the concept of gamification but a low 17.4% knew and understood what gamification actually was in detail until participating in the research process and activities.

Keywords: Gamification, Higher Education, Social Networks, Thailand

Introduction

The focus of this research involves the potential application of gamification to enhance learning and teaching. Gamification is the concept of applying game-design thinking to non-game applications to make them more enjoyable and engaging. The development of computer

technology on the Internet is influence people's life styles. Many studies examine and forecast a transformation of computer technology as it plays a vital role in society particular in education. The Internet and computer technology is a priority asset in the education institutes' strategies to improve the quality of education performance. Online social networks creates another effective channel of communication through the Internet which combines email, short messages, blog technology and so forth. In practice, the education institutes around the world leverage, Facebook or online social networking as a marketing tool such as virtual tours, school pride, school swag, alumni groups, sharing department content, reaching out to prospective students and places advertising (Kessler, 2011). Facebook is a good example of marketing which has shown enormous growth, from 58 million users in late 2007 to 1 billion users in September 2012 or equivalent to a yearly increase of 77 per cent (Pingdom, 2013). According to this outstanding growth rate of Facebook as a form of online social networking, the future of the online social networking is developing into an area of fascination for academic research for sound reasons.

The research findings of Gartner Inc., (2011a), 'Gamification' was driven by novelty and hype and it is positioned to become a highly significant trend over the next five years. Gamification was forecast to be the future of marketing tool for communication, by 2014, more than 70 percent of Global 2000 organizations will have at least one 'gamified' application (Gartner Inc., 2011a). Gamification has been recommended as a future innovation in student support which will replace Social Networks (Gartner Inc., 2011b). Gamification will influence learning management methods and learning material design (Gartner Inc., 2011a). The challenge of using gamification relates to educational psychology and the guidance provided by educational technology. Therefore, this research is focused on the knowledge level of Internet users within Higher Education in Thailand in the new computer technologies. The research employed a survey and interview methodological approach to elicit feedback on gamification and other new technology strategies designed for educational purposes. The objective of this research paper is to report a result of this case study in a selected university in Bangkok. The research findings, noting the limited sample, should indicate important recommendations in order to select and plan to use the emerging technologies in future based on this study.

Literature Review

'Games and Gamification' and 'Game-Based Learning' were highlighted as an emerging technology that will be adopted within two to three years after commencing with some prominence from 2012-2013, as detailed in a Horizon Report (2013 - Higher Education Edition). The report is a series of comprehensive research ventures which were established in 2002 identified and described emerging technology in education around the globe (the New Media Consortium, the EDUCAUSE Learning Initiative, & an EDUCAUSE Program, 2013). By undertaking a parallel comparison of business sector and education arena, most of the future computer technologies are focusing on human interaction and mobile computing such as human augmentation, volumetric and holographic displays, automatic content recognition, natural-language question answering, speech-to-speech translation, big data, gamification, augmented reality, cloud computing, Near Field Communication (NFC), gesture control, virtual worlds, biometric authentication methods and speech recognition (Gartner Inc., 2012; the New Media Consortium, the EDUCAUSE Learning Initiative, & an EDUCAUSE Program, 2012, 2013). This current study has selected eight technology keywords which are significant to education and business those are: Infographic, Gamification, Mixed Reality, Social Networks, Cloud

Computing, Augmented Reality, Learning Management System (LMS) and Personal Learning Environment (PLE). Based upon the below literature, gamification will play the important role in the near future of computer technology.

By 2015, more than half of organizations which manage innovation processes will gamify those processes (Gartner Inc., 2011b). The broad definition of gamification is the way to apply game mechanics to non-game environments in order to motivate people and change behavior (Gartner Inc., 2011a). According to the same report, by 2014, a gamified service for consumer goods marketing and customer retention will become as important as Facebook, eBay or Amazon (Gartner Inc., 2011b). Gamification can be applied into many activities for instance innovation, marketing, training, employee performance, health and social change (Gartner Inc., 2011b). The strategies which drive gamification to be an outstanding computer technology are gamification: 1) accelerates feedback cycles since it increases the velocity of feedback loops to maintain engagement, 2) provides clear goals and well-defined rules of play to ensure players feel empowered to achieve goals, 3) builds a compelling narrative that engages players to participate and achieve the goals of the activity, 4) provides many short-term, achievable goals to maintain engagement (Gartner Inc., 2011b). Thus gamification is considered a mechanism that adds collaboration and opportunities within the organizations (Gartner Inc., 2011b). Gamification is an approach that aims to inspire deeper, more engaged relationships and to change behavior, however it needs to be implemented with care and thought (Gartner Inc., 2011a).

The new computer applications under the gamification concept were designed to slowly gain traction in the enterprise sector as the corporate workforce inducement to stimulate ideas of blending fun and engagement into the workplace or classroom (Mak, 2013). Currently, gamification is influential beyond the initial focus of media, fitness, eCommerce, local retail, financial services and above all education (Chang, 2012). Predictably, this concept is expanding in the education sector as well (Mak, 2013). The inspiration of gamification becomes a groundbreaking development which integrated into a collaborative platforms and massively online open courses purposes (Mak, 2013). It will be used for redefining the traditional sense of education and teaching methodologies (Mak, 2013).

Both in theory and practice, the eLearning approach is different from games and gamification (Raymer, 2011). Crucially, the technique to deliver knowledge through gamification needs to be carefully designed (Raymer, 2011). The important point is consideration to align with other educational theories and focus on learning objectives. Gamification is not only just for communicate with students but also encourage students to achieve higher competency level through the “edutainment” circumstances. Academia has a responsibility to develop both advances and advantages from the assets, benefits and strengths of game mechanics which has the capacity to make study more pleasurable, measurable, productive, and rewarding reflecting on the insightful research of Chang (2012).

The gamification technique places emphasis on the three F’s: Feedback, Friends and Fun (Lee, 2013). These three F’s can be explained for instruction approach. Feedback should be provided when students commit to do a learning task, and the teacher should reward those students for their commitment. Friends can create camaraderie and collegiality which increases motivation for participating in the classroom. Fun drives learning ability rapidly and reduces boredom. In spite of the reward type, a good gamification strategy relies on recognizing and rewarding students to reinforce and promote desired behaviors and actions (Lee, 2013).

According to this literature review, gamification is in the beginning stage of implementation. The prototype of gamification in education is still in progress of work. Therefore, the researcher is interested in examine the knowledge level of university students who will be the main users in the near future towards gamification and other emerging technology keywords.

Research methodology

This case study employed a survey and interview methodology as the two research mechanisms to explore the knowledge level of university students towards the eight technology keywords. Both the survey and interview were implemented during a face-to-face seminar in a selected university located in Bangkok Thailand in February 2013. The survey content have been designed and consulted with two experts: one expert in education measurement and another expert in educational technology. The questionnaire has been modified according to the advice. The survey form was distributed when the participants first arrived to the seminar and registered. The organizer has collected the completed survey forms before the formal seminar commenced. The questionnaire mainly focused in eliciting the levels of knowledge towards eight technology keywords: Infographic, Gamification, Mixed Reality, Social Networks, Cloud Computing, Augmented Reality, Learning Management System (LMS) and Personal Learning Environment (PLE). The questionnaire was brief and uncomplicated and used plain language. Survey participants were requested to categorize their knowledge levels towards eight technology keywords; 1) neither know nor understand; 2) saw it before but do not understand it; and 3) know and understand it well. During the break in the seminar, the face-to-face interviews were conducted by inviting six representatives, two students from each level bachelor, master's and doctoral degree using random selection.

Research findings

The population was 40 university students who participated in the seminar. There were 23 respondents or more than half of participants returning the pre-seminar-survey form and six students were subsequently interviewed. Three groups of university students participated in this research consisting of bachelor, master's and doctoral degree students (60.9%, 21.7% and 17.4% respectively). All students were studying at the Faculty of Industry Education, Department of Educational Technology in Vocational and Technical Education. There were more male participants (60.9%) than female participants (39.1%). The results of the findings are illustrated in Figure 1. According to the Figure 1, the bar graph shows the percentage of three levels of knowledge: the zero level of knowledge (I neither know nor understand), moderate decrease (I saw it before but do not understand it) and fair knowledge (I know and understand it well) of each technology keywords in order. From the top of Figure 1, the research findings indicated that almost all participants (91.3%) understand Social Networks concept quite well. The knowledge level of gamification is at the second from the top, which earned 82.6 per cent of fair knowledge. Only about one third (34.8%) of the respondents indicated that they neither know nor understand learning management system (LMS) which is one of the most common systems of education today. This might be because this group of university students was in the traditional mode of learning so not all students are familiar with LMS. In other words, all the rest of participants or about two thirds stated that they do not understand or even know about LMS. Approximate two fifths (43.5%) of participants neither knew nor understood mixed reality and cloud computing. Interestingly, less than one tenth (8.7%) of respondents stated knowing and understanding the

concept, function and practice of the personal learning environment (PLE). Only small groups of people or 13 per cent of participants knew and understood the infographic concept well. About three fifths (65.2 %) of participants stated the lowest knowledge level for the augmented reality (AR) technology concept. This finding can imply that generally people neither know nor understand about AR. Interestingly, there were three technology keywords that none of participants select moderate decrease level of knowledge (I saw it before but do not understand it) those were; social network, gamification and mixed reality.

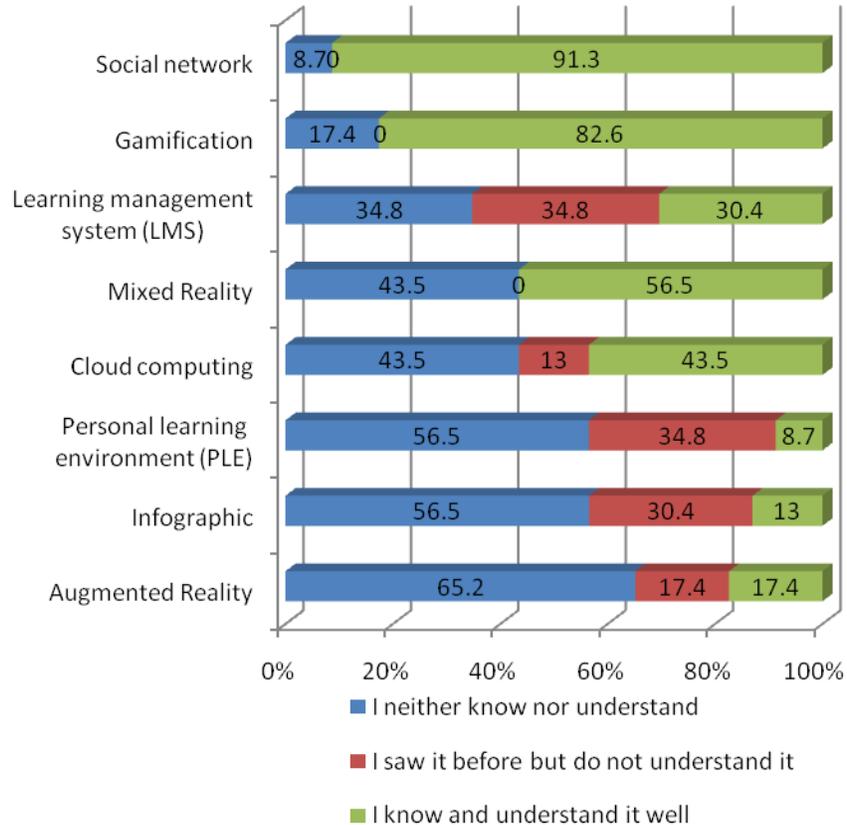


Figure 1: Knowledge level

Additionally, the researcher selected independent samples in the form of a t-test to check variation between genders and found the statistically significant differences only knowledge towards cloud computing where males' knowledge was higher than females' knowledge at the 0.05 level. Thus, based upon the majority of the findings, it can be assumed as not signifying a notable different knowledge level between male and female.

The interview was conducted to discuss what induces or stimulates university students' need and will to learn about new technology concepts. The result can be summarized: university students were interested in mobile learning technology and research on the mobile device. The demand of knowledge was driven by how to use the mobile device effectively and what is the modernized mobile application supporting education. The demand of knowledge in terms of being a programmer for mobile device was in the moderate level only.

Recommendation, discussion and Summary

According to this research finding, the transition from social networks to gamification for education in Thailand might present a similar trend as that which occurred in the business sector. It can be forecast that learning institutes will gamify learning process as a key innovation within education. This was supported by the high level of knowledge and interest of Thai university students who participated in this research which showed that almost all knew about social network technology concepts proficiently; almost as high as their knowledge of gamification. The reason for this might be because game-based learning concept is not totally new in Thailand. The influence of mobile technology growth creates a better potential to learn new concepts of technology it would seem giving an incitement in how to stimulate new learning and the possible extensive use of applications to support heightened learning within this dimension. As this study employed both qualitative and quantitative research methods, the additional recommendation is the rapid development of technology that is likely to affect the university student life style based on this minor study. There will be a great opportunity to empower the quality of education by several computer technologies. The convergence of gamification and education will reduce the gap of academic and entertainment in the near future whilst holding an attractive capacity to impact positively on learning and teaching. The learning institute should consider leveraging new computer technology to enhance the quality of instruction and above all, the consideration of balancing the importance of human touch and hi-end technology needed strategically now to enhance the future of education.

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Implementation of the Auto-Interactive Web-Board Service for Improving the Remote Advisory System



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Abstract

The main objective of this research is to improve the conventional school web-board as the vital tool for distant student support and guidance. Due to the lack of face-to-face contact and regular advice between distant students and staffs, the school of science and technology has installed the school web-board system as the main communication channel between students and staffs. Although, students could post or report their problems via the web-board, this tool could not achieve students' satisfaction. Some problems were neglected by advisory staffs and remained unsolved leading to the negative effect on the self-study process. The existing problems including academic area and distant learning process possibly discourage them to continue studying. Dropping out students became increasing instead.

Formerly, the school's web-board was not user-friendly. Communication channels between users could not be linked automatically. Since users had to browse the school web-board occasionally to keep following their questions and replies manually, these users might miss some important or urgent requests owing to the random posts. Consequently, the auto-interactive module of web-board service was proposed in order to improve the remote advisory system. The web-board database was implemented by gathering all email addresses of all participants in each conversation thread and broadcasting new information to all listed-emails automatically. This module could keep monitoring remote advisory system by notifying both students and staffs about new conversations or urgent problems. Hence, students' problems were responded instantly, and the recently-posted-replies from staffs could successfully help students gaining solutions for their problems.

Keywords: Auto-Interactive Module, Advisory Web-Board Service, Remote Advisory System

Introduction

Sukhothai Thammathirat Open University (STOU) has provided various facilities for distant student support. One of the main facilities is the remote advisory service. Apart from information provided via web-sites and receiving students' queries via post mails, STOU has employed many tools for distant student support such as the one-stop-service student center, school web-boards and remote consulting via telephone service as described in Sukhothai Thammathirat Open University Official Website (2013).

With the one-stop-service student center, when distant students have problems they can dial the hot line numbers and ask for emergency helps, further information and co-operation between the student center and the registry, schools or other related departments. Alternatively, students can contact their schools by posting questions or requirements on school web-boards or sending emails to schools' email addresses. Then, school staffs will response back regarding these problems' solution. Finally, students can make a telephone call to their schools directly. In this case, students can be in conversation with school staffs; useful suggestion or information can be provided instantly, but there is not any history recorded.

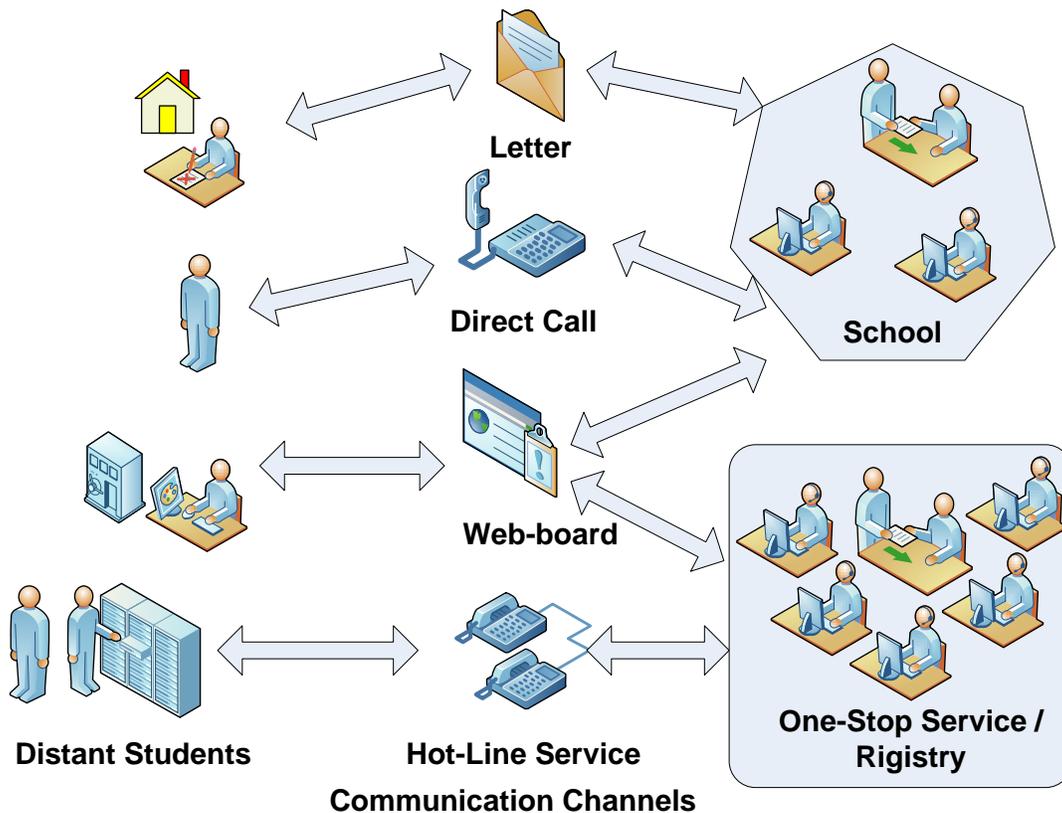


Figure 1: The conventional remote advisory services

Although these remote advisory services have been officially used and improved as the conventional tools for assisting distant students effectively, some weak points still exist. The main shortcoming of these conventional tools is the discontinuity of advisory as described in Figure 1. Due to the lack of one-to-one student consulting protocol, that is one staff responses to

one student's problem case until the problem is successfully solved, therefore discontinuity of solving a student's problem possibly occurs. This is because the staff person with whom each student contacts at each time is not assigned specifically, and there is not cooperation in sharing students' information between staffs. All these factors possibly affect the success in advisory support.

Despite contacting staffs via the hotline service, telephone calls, emails or school web-boards, a student might consult with other staffs who do not know any preliminary situation about that student. As a result, students have to repeat about their queries or problems with the first staff replacement leading to uncompleted problem solution, unless students specifically ask for the same staff who has ever contacted at the beginning of the communication. In some case, the replacement of the first staff does not know the progress of the problem solution. This can impact on the success of solving student problems because a staff takes time to learn about that problem in particular and to cooperate with other related offices. As a consequence, there is the delay time of assisting students and the delay probably causes some solutions become redundant or neglected.

Additionally, the one-stop-service student center has developed the student database. All logging of communication between help-desk staffs and calling students are recorded as references. Whenever there is the next incoming call from the same student, the next help-desk staff on duty can search for the history and the updated progress, so he or she can continue advising the student oneself without requiring any responses from the former help-desk staff. On the other hand, the problem of this service still exists. Since there are a lot of incoming calls from many distant students but the service is overloaded, students cannot make a conversation with any help-desk staff. Or they do not want to be in the long waiting-list of the hot line service, thus many students quit the queuing and stop attempting to contact STOU staffs via this channel in spite of gaining non-solution for their problems.

Alternatively, some students employ the conventional school web-board instead of calling to the help desk due to the overload and busy lines. Most students who can access to the internet easily prefer to posting their queries or requirements on school web-boards and waiting for replies back from staffs. Unfortunately, many questions posted on web-boards are ignored or left unattended. On-duty staffs might possibly skip some questions and not give any further suggestion related to the post. Furthermore, although some answers are posted responding to students' problems, staffs still miss some questions posted afterwards if students are not satisfied about the previous answer.

When all communication channels are not user-friendly and cannot assist students effectively, the remote advisory service does not completely benefit all users, both staffs and students. All these problems occur normally leading to dissatisfaction with distant student support systems, remains of students' problems and hence, high percentages of study failure, quitting and dropping out. This remarkably affects quality of distant learning system especially in the part of distant student support systems.

Objective of this Work

Currently, people can access internet easily at anytime from anywhere. Thus the web-board service is selected as the vital channel providing the ubiquitous and user-friendly tool for distant learning system. According to the problems stated in the previous section, this work

focuses on the model of auto-interactive service in order to improve the remote advisory systems based on the conventional web-board. In order to solve the problem of lacking of responses from both supporting staffs and distant students, the implementation of auto-interactive web-board service is proposed in this paper. The characterization of this service includes 1) the auto-interactive communication between users, 2) all updated information as the references and 3) the user database. The diagram of the auto-interactive implementation on the web-board service is illustrated in Figure 2.

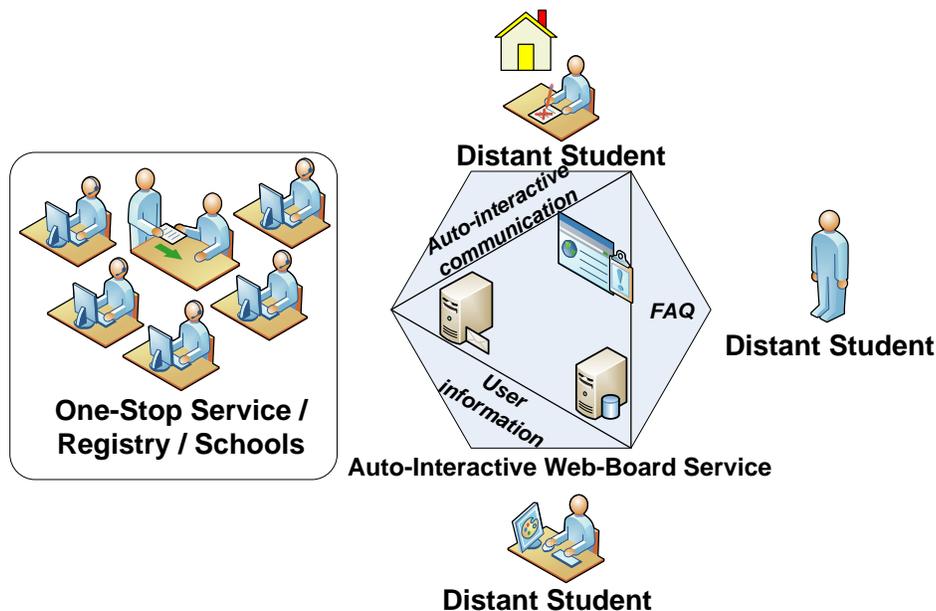


Figure 2: The diagram of the auto-interactive implementation on the web-board service

Firstly, staffs can monitor and keep solving students' problems continuously without any termination in communication. Next, students can be notified whenever further information about their problems is posted on the web-board. Consequently, all users are able to keep updating all re-posted information regarding the problem issues. Secondly, users can search for the solutions for their problems from the history logging as the references. All these references are classified depending on the topic or subject of problems. Thirdly, the main telecommunication technology that is used for the interactive service is the email address. All users' email addresses are stored in the user database and are retrieved particularly for the related participants.

All these functions combined together make the web-board service gain the user-friendly and ubiquitous feature. The success of this implementation can satisfy users at the both ends, supporting staffs and distant students.

Features of Auto-Interactive Web-Board Service Model

According to previous works, Ratcliffe proposed the queuing system for remote advisory service by designating specific staffs for daily services. This system included the service schedule, the discussion forums for both group assignments and laboratory projects (Ratcliffe et.

al. 1999). Furthermore, Ishikawa et. al developed the central academic forums with email notification function for students, tutors and instructors for the purpose of the remote advisory service improvement (Ishikawa et.al. 2002). Regarding these previous researches and the poor result of satisfaction survey of the conventional web board services (Makaratat et. al. 2012), the researcher proposed the auto-interactive web-board service model as the new practical one which performed the beneficial tool for tracking and solving all students' problems.

Consequently, there are 3 main features of auto-interactive web-board service model as described below.

1) The auto-interactive communication

In order to implement this feature, the notification of re-posting one particular topic should be emailed to the email addresses of all participated users. Actually, all these related users refer to on-duty staffs, help-desk staffs, advisors and, also, the students related to that topic. Firstly, the email will be sent to the staffs or advisors informing about the new post from students. Whenever there are further responses on that topic either from the on-duty staffs or from other students posting some more questions or suggestions, email notification for this update will be kept sending continuously until the conversation stops. Such kind of this feature can assist all participants in that topic keep tracking new posts until the answers or suggestions are satisfied by students. This can imply that the advising for that problem is successful.

2) Frequently Asked Question (FAQ)

The topics of all posting should be classified into several groups of interests. The examples of groups of questions posted by distant students are examination, examination result, training practice, special intensive training, course material, transferring credit, enrollment, graduation, application and specific academic groups etc. If all posts are categorized already at the first place, it is convenient to retrieve all posts later in terms of those classified groups. This feature can be implemented in the web-board as the Frequency Asked Question (FAQ). Users in the role of help-desk staffs or advisors can apply FAQ as the references for solving the same problems for other students. On the other hand, users in the role of distant students can exercise the FAQ function as the database of solution. They can learn about how to solve their problems themselves from the previous conversations recorded and categorized in the FAQ function without contacting the help-desk staffs. As a consequence, the implementation of FAQ in the web-board provides the self-support for distant students effectively.

3) User information

All user information is stored in the system database at the first place when registering to the web-board system. Information contains user' s general information, names, identification numbers, and email addresses. The email addresses are the most important information used as the destination tags when notifying all relevant participants about new re-posting. Users' should enter the emails regularly used in order to keep being notified via email system.

Implementation of Auto-Interactive Web-Board Service

Figure 3 shows the prototype of the web-board system implemented with the auto-interactive feature in the school of science and technology, STOU.

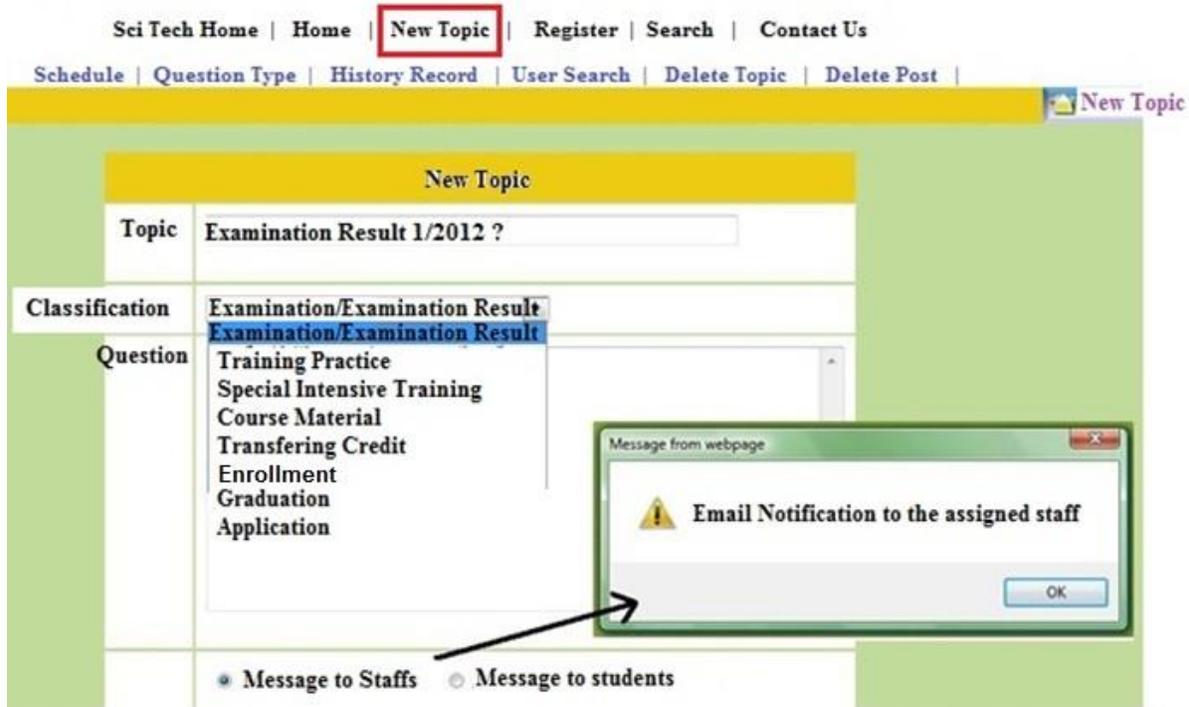


Figure 3: The prototype of the auto-interactive web-board service

Whenever there is a new topic posted on the web-board, the system will send the email to the help-desk staff or the advisor as shown in Figure 4. Additionally, if there is a new conversation responding to the previous post, the system will also send the email to all participants in that post such as an owner of the topic, a help-desk staff and other users who previously posted in the same thread. Hence, all participants are informed about the latest updated information about that topic.

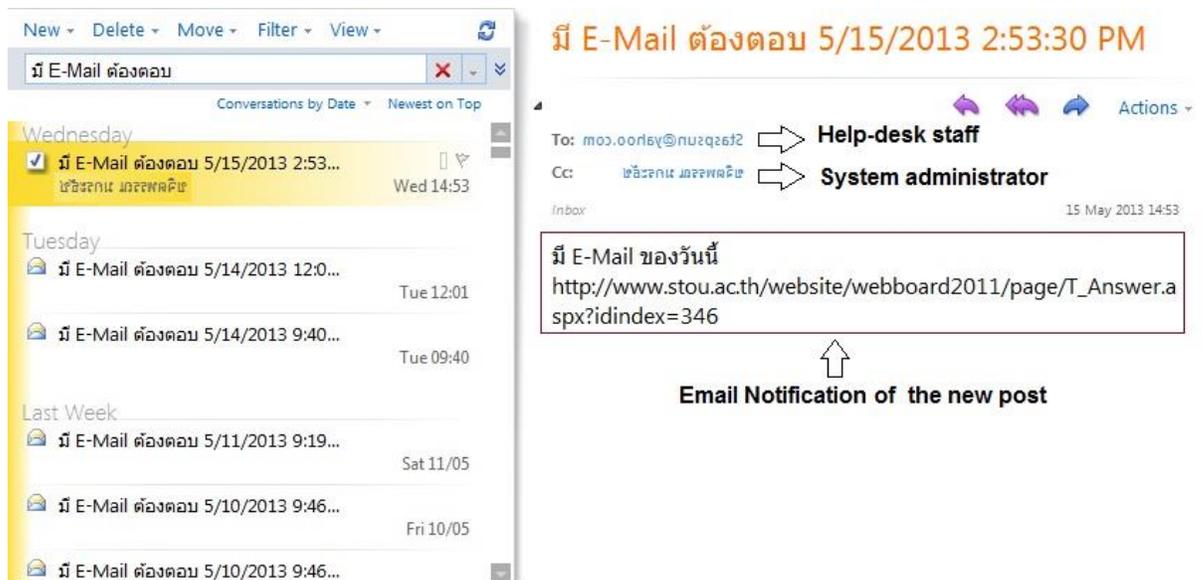


Figure 4: The email notification function for the help-desk staff or advisor

The email notification function is still working although new conversations are posted on the other day as illustrated in Figure 5. This email notification informs staffs about further more questions probably posted. In addition, this function, also, alerts students in this thread about new conversation of either furthermore questions posted by others or some useful suggestions given by staffs, and also by other students. The email notification is able to keep communication between all users and is much more convenient because they can keep updating new information without monitoring the web-board all the time.

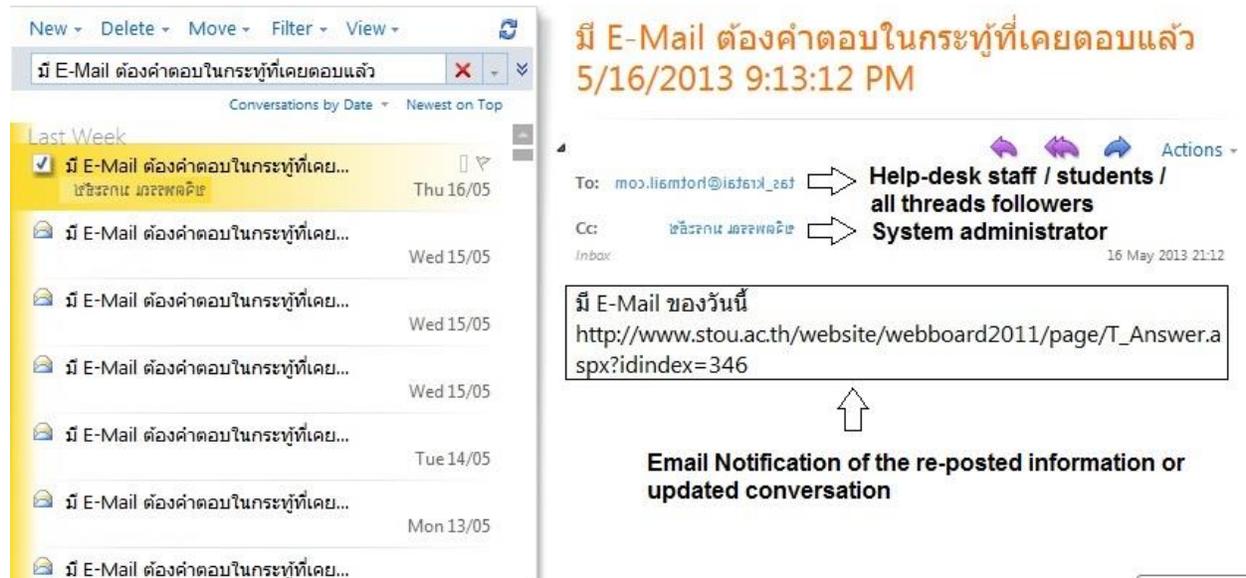


Figure 5: The email notification function for following users

	Special Intensive Training	Numbers of view	Numbers of Comments	Date of the latest conversation
	All Examination / Examination Result Training Practice Special Intensive Training	ผู้เข้าชม	ผู้ตอบกระทู้	วันที่ Post
96102	Course Material Transferring Credit Enrollment Graduation Application	192	5	Sunday, April 01, 2012
สิทธิ์การเข้าอบรม		61	0	Saturday, January 19, 2013
ฐานข้อมูล มีเปิดอบรมเข้มใหม่ครับ		107	4	Tuesday, October 09, 2012
การอบรมเข้ม		73	2	Tuesday, October 30, 2012
การสอนเสริมแบบเข้ม วิชา 96304 การสื่อสารข้อมูลและระบบเครือข่ายคอมพิวเตอร์		95	0	Wednesday, April 17, 2013
อบรมเข้มกลศาสตร์ 97211		23	0	Thursday, May 16, 2013

Figure 6: FAQ function implemented in the prototype web-board

Figure 6 presents the implementation of FAQ in the prototype web-board. Since all topics are classified in to many groups of interests, the system retrieves all logged threads and presents topics into the specific category depending on users' selection. According to Figure 6, the user searched for the topics of *special intensive training*; all these topics are presented. Thus users can access to these specific topics and can learn how to solve these problems by themselves.

Conclusion

Remarkably, comparing this auto-interactive web-board service with other tools, such as social networks, i.e. Facebook, there are some points of extent. Since Facebook provides the auto-interactive protocol such as the notification of new comments via sending email or alert to all participants, Facebook can be implemented as the platform for supporting distant students. However, when considering about the self-supporting protocol, it is not convenient for users to search for history conversation. Unless there is not the specific groups of student problems created in Facebook, Facebook becomes another user-friendly tool for remote advisory service.

When students employ these functions, they can benefit from the auto-interactive web-board. The best solution with quick responses and also the FAQs impress distant students, and the results of implementation convince students to use the web-board as the main channel or communicating with advisors.

In the perspective of staffs, the help-desk staffs or advisors can gain more student support efficiency. They can reply or find the solutions for students immediately after getting alerts. Staffs response each student's problem quickly and know the current situation from the updated conversation. Furthermore, staffs can use FAQ as the references for solving problems of other students. It is more effective if one student's problem case relies on one staff. This is because the same staff can keep tracking the progress of solving each problem from the beginning and can find the problem solution without any disagreement or different opinion with other replacement staffs.

Finally, the auto-interactive function has been preliminarily implemented in the school of Science and Technology, STOU as operated in Distant Student Support System web-board service (2013). Makaratat, K. et. al. (2012) operated Distant Student Support System web-board service or DS-SOS in parallel with the conventional school's web-board. There was the satisfaction survey of DS-SOS operation during March to June 2012 with targets from the school of science and technology users, both staffs and students. The high level of satisfaction was obtained. However, this service has been operated just only within the school, in order to achieve students' satisfaction in overall, STOU should concern about implementation this auto-interactive tool in the conventional web-board in the full scale, for examples implementing this tool in the web-boards of the registry, the graduate school, the student service/support center, the one-stop-service student center and all schools etc.

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Creating of Medical Images of Skeletal System



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Abstract

From Edgar Dale's cone of experience, people generally remember 30% of what they see. In medical science education, the enhancement of remember can be conducted by medical images for demonstrating or applying in learning practice. Especially, owning of medical images help the instructors safe from intellectual property infringement. So the copyright images are needed. 100 skeletal images (53 axial and 47 appendicular bones) were drawn for creating the copyright instructional media, streaming media or e-book, etc. All original images were sketched from dry bones and x-ray images. At least 2 positions (anterior and posterior views) of each bone were prepared. Color painting technique was applied for making the light and shade on bone until their depth were visualized. Finally, Adobe Photoshop CS5 extended was used to retouch and beautify these images. The quality of these images were evaluated by 3 experts with scoring analytical rubrics. The detail and composition of images and anatomical relationship were analyzed with 10 categories. The perfected images were applied in learning media and published for e-Learning of anatomy by Adobe Presenter 7. The results showed that these skeletal images were qualified, so they can be used to produce the instructional media, learning activities and e-book for medical science education. In conclusions, the knowledge and practical skill of the learners have been enhanced by e-Learning of anatomy with the copyright images.

Key words: medical images, skeletal system

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Introduction

In medical science educations, anatomy is a fundamental subject of many advanced topics and requires much memorizations for retention the large amount of information. Many first year students of anatomy courses demonstrate an inability to self-regulate their learning.⁽¹⁾ Many teaching techniques were established for assisting the learning of students. Instructional media using some images showed the superior learning outcome than the pure text Instructional media. Instructional media may provide an effective supplement to promote and facilitate the teaching and learning.⁽¹⁻⁸⁾

From Edgar Dale's cone of experience, people generally remember 30% of what they see.⁽⁹⁾ For medical education, the enhancement of remember can be conducted by medical images for demonstrating or applying in learning practice. Sketching is an intuitive way to explain spatial relationships between complex objects.⁽⁶⁾ It indicated that learning with pictures will improve the learning outcomes. Furthermore, owning of medical images help the instructors safe from intellectual property infringement. So the copyright images are needed for developing of many instructional medias.

Objective

Skeletal images were drawn for creating the copyright medical images.

Materials and Methods

206 dry bones were studied. Consideration the detail and the difficulty to draw, these bones can be categorized into more and less complex groups. Skull bones were in more complex group but long bones, short bones, irregular bones and other bones were classified to less complex group. All original images were sketched from dry bones and x-ray images. The proportion, balance, rhythm, emphasis, unity, contrast and harmony of the composition of images were compiled and integrated to create 100 copyright skeletal images (53 axial and 47 appendicular bones). At least 2 positions (anterior and posterior view corresponding to the routine x-ray positions of long bones or additional positions of skulls.) of each bone were prepared. Color painting technique was applied for making the light and shade on bone until their depth were visualized. Finally, Adobe Photoshop CS5 extended was used to retouch and beautify these images. The quality of these images was evaluated by 3 experts with scoring analytical rubrics. The detail and composition of images and anatomical relationship were analyzed with 10 categories and 4 levels of assessment scales. Thus, score of 10-16, 17-24, 25-32 and 33-40 were poor, fair, good and very good images). The perfected images were applied in learning media and published for e-Learning of anatomy by Adobe Presenter 7.

Results

100 copyright skeletal images (53 axial and 47 appendicular bones) were created. These images were evaluated using analytical rubric scoring. The results showed that they have very good detail and composition of images and anatomical relationships with the highest score of 33-40.

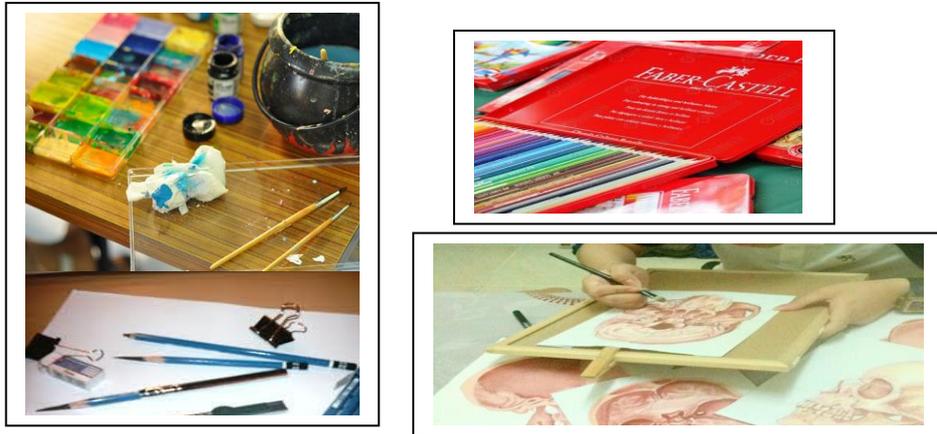


Figure 1 Drawing material

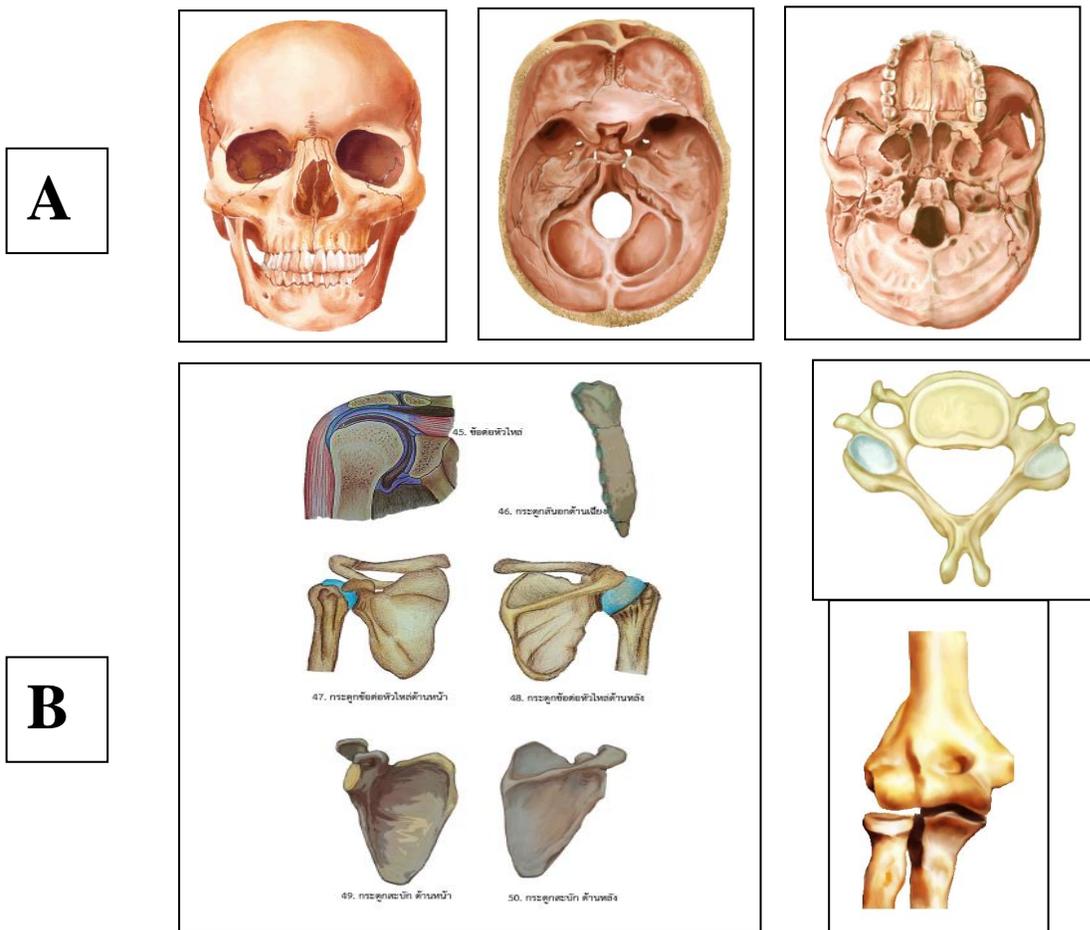


Figure 2 Examples of drawing bone images,
 A. skull bones: more detail and difficulty to Draw,
 B. extremities and spines: less detail and difficulty to draw

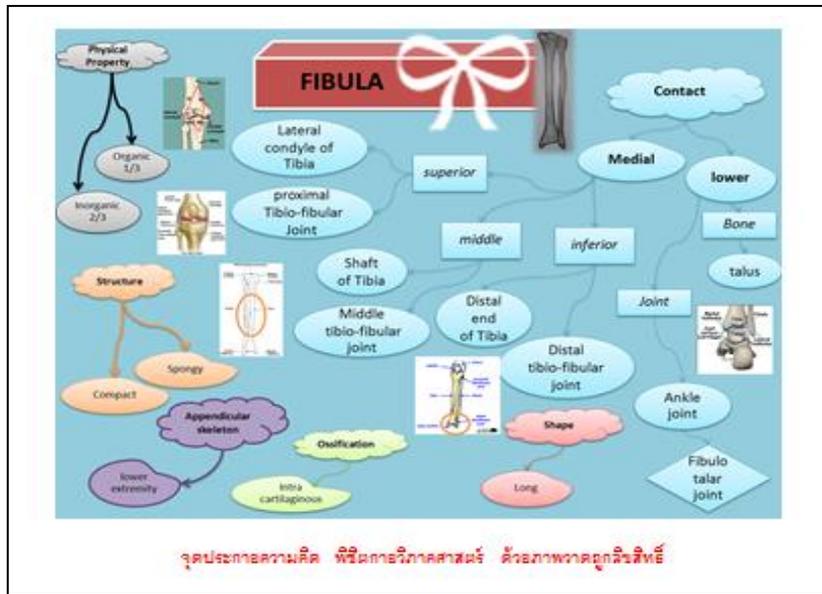
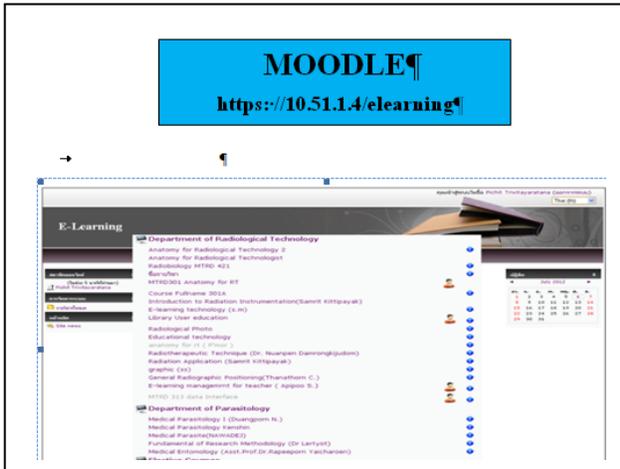


Figure 3 some applications of copyright medical images

Discussion

These copyright skeletal images can be used to develop many types of instructional medias in medical education. The perfected images have been applied in instructional media and published for e-Learning of anatomy by Adobe Presenter 7.

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The Development of Distance Education: A Case Study at National Economics University, Hanoi Vietnam



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Abstract

Distance Education Center (DEC) at National Economics University, a leading university in business and economic management in Vietnam, was established in 2006. DEC has achieved remarkable results during the period 2008-2012. The evidence includes the increase of number of students to 3 times in this 5 year period, the expansion of operation in 10 locations outside Hanoi. However, there are other evidences showing some problems need to be fixed: the recruitment has just about 50% of the quota, the student's completion rate is about 30%. This study uses qualitative method, including personal in depth and focus group interviews to explore some reasons that cause these situations. The main perspectives to be examined are student recruitment and enrolment, financial mechanism for distance education, study registration, training materials, self-studying, lecturing, studying support and management. After presenting the findings, some discussions and recommendations have been made to enhance the quality and promote the development of distance education at NEU.

Key words: distance education, development, improvement

Background

1. Distance Education in Vietnam:

Currently, there are many terminologies used to describe the concept of distance learning, such as open education, distance education, distance teaching, distance learning, remote training or education. No matter which terminology is used, it is necessary to include the nature of the distance learning, which is the separation of space and time. The trainees of distance learning mainly self-study through textbooks, videotapes, audio tapes, CD – ROM, computer software, with the combination of multimedia vehicles, Internet and the organization and support from the University.

Vietnamese government has identified the target for education “by year 2020, the proportion of workers through vocational training and university is about 70%; proportion of students through all means of education per a thousand people is around 350 – 400 (0) . To

achieving this target, Vietnam witnesses a rapid growth of distance learning recently. Number of universities providing distance learning increases significantly. Up to now, there are 20 universities in Vietnam which established training centers specialized in distance learning activities (0).

Table 1: Names of Universities having distance learning center

No.	Name	No.	Name
1	Hanoi Open University	11	Vietnam National University - Ho Chi Minh City
2	Hanoi National University of Education	12	Ho Chi Minh Open University
3	Hanoi University	13	Duy Tan University (Da Nang)
4	National Economics University	14	University of Da Lat
5	Posts & Telecommunications Institute of Technology	15	Hong Bang University
6	Hanoi Pedagogical University No2	16	Binh Duong University
7	Hanoi University of Business and Technology	17	Dong Thap University
8	Vinh University	18	Tra Vinh University
9	Hue University	19	Ho Chi Minh City University of Technology
10	The University of Danang	20	Can Tho University

(Source: Nguyen Cong Hinh “Distance learning quality control” present at the “Distance learning quality improvement” seminar at Hanoi Open University 14/05/2012)

2. Distance Education at National Economics University, Vietnam:

a. Introduction of Distance Education Program at NEU

NEU’s Distance Education Centre (namely DEC) was established in 2006 and the first course opened in 2007. Currently, the Center has only delivered bachelor degree with the credit model. The curriculum has been built based on the most updated curriculum for full time students and exclusion of physical and defense courses. Distance education requires self-learning by students given the guidelines from lecturers and support from DEC’s staff. The program has spitted into 12 semesters, normally 3 semesters per year, each semester students will register for 10 to 14 credits. Normally, students come to class 2 times: the lectures will brief the content of the course, give guidelines on how to study at the first time. The second time, any remaining questions will be answered by the lecturers and the students will take the final exam. The total time in class has just accounted for 20% - 25% the time required to study the course. Normally,

the students requires written exam in which they have to answer several theory questions and analyze some small cases. The midterm assignment are considered as compulsory for students before taking part into the final exam. In order to join the class, the students have to pay the fees, including the fees for training materials. The training materials are mainly the text book that employed for full time students. During the time for self-studying, students can send their questions by email, fax, telephone to the lecturers and DEC's staff.

b. The achievement of NEU's distance education program:

The expansion of geographic areas that the program being delivered

Till now, NEU's distance education program has not only been deployed at the University but also in 10 off-campus locations, such as Dong Anh (Ha Noi), Quang Ninh, Hai Duong, Bac Ninh, Ha Nam, Ninh Binh, Nam Dinh, Thanh Hoa, Quang Binh. Just in a short time since the establishment, NEU's distance learning have been expanding its coverage to attract the trainees who wish to continue studying. Since 2012, the Centre had also provided the E-learning program.

The number of students classified by specialization:

The majorities that the Centre has been providing focus on Business Administration, Accounting, Banking, Economics, and Law. The targeted trainees are people who have already worked. As our statistic, percentage of people have been worked accounts for 95%, especially in provinces 99% of total participants. This number proved that we focused on the right targeted participants: people who have jobs and have desire to improve their qualification. By December 2012, the number of current students is 7.575, this number has increased 3 times during the last five years. The students from Hanoi accounted for about 55%. Table 2 illustrates the classification of students by specialization.

Table2: NEU distance learning's number of students

		1	2	3	4	5	Total
Majority		Economics	Business Administration	Accounting	Banking - Finance	Law	
2008	Enroll	392	1,166	609	149	87	2,403
	Number of students	886	1,940	609	149	87	3,671
2009	Enroll	259	323	270	186	132	1,170
	Number of students	1,145	2,263	879	335	219	4,841
2010	Enroll	510	458	280	-	156	1,404
	Number of students	1,655	2,721	1,159	335	375	6,245
2011	Enroll	-	169	119	-	-	288
	Number of students	1,595	2,759	1,278	335	375	6,342

		1	2	3	4	5	Total
Majority		Economics	Business Administration	Accounting	Banking - Finance	Law	
2012	Enroll	-	1,065	304	152	217	1,738
	Number of students	1,334	3,580	1,582	487	592	7,575

Source: NEU's Distance Education Center

Table3: Number of NEU's distance students completing the program in time

		1	2	Total
Majority		Economics	Business Administration	
2011		60	131	191
2012		261	244	505

Source: NEU's Distance Education Center

The completion rate

Table 3 illustrates the number of graduated students in time in 2011 and 2012. The number of student reduced significantly through each semester. The secondary figures show that after the first 6 semesters (about the first two year), the number of student studying at NEU campus has reduced by 60%. This figure is about 40% outside Hanoi. The most difficult course that students fail are Math and Basics Computer. After the first two years when students start studying their specializations, the number of students has been more stable, each year reduced by 10%. The student's completion rate for the first intake at NEU's campus is 26%. Outside Hanoi, this rate is about 70%. In average, the completion rate is just about 30%

Although in 5 year period time, Distance Education at NEU has achieved remarkable results. However, there are some problems that need to be addressed to enhance the quality and expand the distance education at NEU, a leading university in business and management in Vietnam. In order to find out the reasons for these problems, a qualitative research has been conducted. The following part will present research resign, finding, discussion and recommendations to improve the distance education at NEU.

Research Design

In order to find the reasons for very low completion rate, the qualitative study has been conducted. In this study, personal in depth interview and focus group has been conducted.

- ***Individual interview:*** separated interviews with key individuals has been conducted, including 5 deans/associate deans in related specializations, 2 leaders of distance education centre, 6 leaders of NEU's related departments, 4 management staff at DEC, and 10 class representatives of NEU's distance learning class had been conducted.

- **Group interview** with 3 targeted groups: students, lecturers, and DEC's support staff. Each group comprises of from 5 to 10 members. In this study, 5 groups of students, 3 groups of lectures, and all support staff at DEC have been interviewed.

The interview contents focusing on the following perspectives:

- Student recruitment and enrollment: interview with students and support staff
- Financial mechanism for distance education: interview with leaders from related departments
- Study registration: interview with students, and support staff
- Training materials: interview with lecturers, heads of related departments
- Self - studying: interview with lectures, and management staff
- Lecturing : interview with students, and management staff
- Studying support and management: interview with lectures and students

Research Results

Recruitment and enrolment: The figure in table 2 shows that from 2008 to 2011 period, the enrolment figures has been reduced significantly, from approximately 2.400 in 2008 to about 300 in 2011. In more detailed, in this 5 year period, the recruitment number just accounted for 50% of the quota from Ministry of Education and Training. One of the reason is that there is no policy to promote the student's recruitment and retain for staff at DEC as well as DEC's partner outside Ha noi.

Financial mechanism for distance education: Currently, the Government has not spent budget for Distance learning development. NEU and other universities organized Distance learning program based on self-financing principle. This means the money to develop distance education mainly come from the tuition fees.

Study registration: some positive changes in distance learning recently, such as the movement from training based on annual to training based on credits. This gave students more freedom in term of the timing and selecting the courses. However, the registration of students does not synchronize between systems due to the lack of supporting of information technology, therefore participants still need to go to the center for registering directly, paying tuition fee and receiving payment vouchers directly.

Training materials: currently, the text books for full time students has been used for distance education program. There are clearly some unsuitable points for distance learning students. Most of the trainees in distance learning have been working, therefore, they need a program that is practical and applicable for their jobs. In addition, distance learning has not got training materials that emphasizing on self-study.

Studying: Due to the nature of distance learning based mainly on self-studying and self – arranging, the percentage of postpone, delay, and stop the course is rather high. Another nature of distance learning is the distance between students and lectures, students and students. The face to face time in class accounts for about 25% the total time of studying. This has clearly not facilitate the student's self-study.

Lecturing: The time spending for distance learning program is not counted for official lecturing time of lecturers. In other way, working for distance learning program is only considered as a part-time job. For evaluating students, the exams is now only in essay method

and therefore the evaluating is not really objective. In addition, the University has not trained the lecturers skill for distance learning education. NEU still uses the lecturers for traditional education to perform distance learning education, and has not organized any training session for these lecturers to improve the quality of distance learning.

Studying support and management: Due to the lacking of training classes, the arrange of lecture room faces with difficulty. Sometimes, the staff has to arrange a lecture room in the morning and different one in the afternoon, and no specific location for the distance learning students. This reflects the limited recourses for distance learning.

The supporting and management of distance learning, however, witnessed some positive changes, such as increasing number of staff, quality of personnel by recruitment, training of highly qualified staff. However, the management staff of Distance learning has not attended any course specialized in distance learning management. The application of Information technology to Distance learning is also limited, therefore, cannot meet the high demand for the development.

Discusion And Recommendations

From the findings above, the following part will give some discussion and recommendation to improve and expand the distance education at NEU.

The important point is that, although distance education has been clearly pointed as an important prioritized target in government policy but there are a lot of misunderstanding about this. Some interviewees also mentioned that NEU should not involve with distance education due to its very high reputation. In addition, the general perception from general society is that distance education has lower quality compared with part time and full time students. Some government agencies also stated that they will not recruit part time students, therefore no chance for distance education student to have a job in government agencies. In order to change this perception, in the short run, the promotional campaign about the role and the aim of distance education should be launched. In the longer run, the quality of distance education should be enhanced. NEU should also state and declare its strategy in developing distance education to all staff at all level.

Enrollment: We acknowledge that the development of Distance learning in NEU is the right strategy to meet the lifelong studying demand of Vietnamese. With the heritage of the leading university in Economics, NEU is urged to develop Distance learning to extend its coverage and improving its position not only in domestic but also abroad. In addition, the application of information technology should be done as soon as possible to give the best support for the teaching and learning practice.

Registration: Computerization the organization and management activities to provide the best supporting and convenience to trainees. Some procedures that IT can be easily applied are studying registration, exam retaken registration, tuition fee payment, syllabus receipt, and discussion with lecturers.

Training materials: It is an urgent task to build training materials for distance learning with adequacy content and effectively support for the self-study of students. Training materials should include practical cases. The training materials should also be published in types that are convenient for self-study of students.

Studying: The studying procedures of students need to be followed closely. The timetable should be arranged flexibly. In addition, it is need to organize class continuously so that students can have active role to arrange their own schedules. Information system that supports for distance training also need to be improved to build a good connection between lecturers and students, and improve the quality of distance learning.

Lecturing in Distance learning: The University need to train some specialized lecturers for distance learning who have suitable skills for distance learning. And the benefits for these lecturers need to be the same with other lecturers. In addition, it is necessary to detect, and invite guest lecturers, who are now working for businesses, to improving the practical of lectures, and building the connection between students and business community.

The multiple choice test can be applied to give objective evaluation of students. The marking can be done by automated machine. To apply this type of testing, it is needed to build question bank and invest in information technology infrastructure.

Studying support and management: It is necessary to have a specific lecture room for distance learning program. Last but not least, the quality of human recourses that providing supporting service of distance learning also need to be improved if we aim to improve the quality of distance learning.

Conclusion

Distance education is the right direction for Vietnam in general and for NEU's strategy in particular. Although a lot of progress in distance education has been made during the last 5 year at NEU but there are a lot of obstacles that need to be carefully addressed. This study is qualitative in nature but it summarized some important problems that constraint distance education development. It is expected that the exchange of ideas, thought will also support the development of distance education at NEU.

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The Evaluation of “Supporting Multilingual Education for Ethnic Minority in Northern Thailand”

Project: An application of Logic Model



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Abstract: The objectives of this evaluation were: 1) to evaluate the output, outcome, and impact of the project; 2) to evaluate the project implementation; and 3) to learn about factors and conditions affecting the project success and/or limitation. The evaluation was made on the Project for Supporting Multilingual Education for Ethnic Minority in Northern Thailand, Phase II (2010 – 2012). The theory-based evaluation was used in the evaluation program and the logic model was developed to be used to formulate the conceptual framework of the evaluation. Sources of data were: project documents, project holder and educators, students and parents and villagers in three areas (Mon community, Kanchanaburi province; Karen community, Chiang Mai province; Hmong community, Chiang Rai province). The duration of work started from July – December 2012. The data from documentary study, observation, and interviews were analyzed to compare the actual practices with the designed activities indicated in the logic model of the project. The major evaluation results could be summarized as follows:

1. MLE program was established in six pilot schools. Students in those schools showed their self-confidence, enjoyed learning, and reached better learning achievement. Stake-holders in the project supported and participated in the project.

2. Basic research was adequately done for planning and developing the project. Activities that helped raising awareness and mutual understanding regarding the values of multilingual education were carried out. Villagers were invited to participate in the development and production process of reading materials in bilingual education. Inter-agencies collaboration network has been set up for both government and non-government sectors.

3. Causal relationships between inputs, processes, outputs, outcomes, and impacts of the project were proved to conform to the initial logic model used in the evaluation of the project.

Keywords: Multilingual Education, Theory-Based Evaluation, Logic Model

Introduction

The Supporting Multilingual Education (MLE) for Ethnic Minorities in Northern Thailand Project was implemented by Foundation for Applied Linguistics (FAL) with the support from Pestalozzi Children's Foundation (PCF). Total project planning period is from 2007 – 2015 (Phase I 2007 – 2009, Phase II 2010 – 2012, and Phase III 2013 – 2015). The project offers children from ethnolinguistic minority communities the opportunity of a high quality education, by valuing and using their local languages along with the national language in Thai schools (Pestalozzi Children's Foundation, 2012). Mother Tongue-based Multilingual Education (MTB-MLE) places children from ethnolinguistic minorities back at the center of their own learning experience by bringing the local languages and culture into the classroom. Local teaching assistants who know the community languages are trained to teach in partnership with qualified national teachers, helping children to move successfully from the ethnic to the national language and culture, while maintaining pride and confidence in their dual ethnic and national identity (Pestalozzi Children's Foundation, 2010).

By working in partnership with government schools and communities in this project, FAL is raising awareness of the benefits and potential of MTB-MLE at local, regional, national and international level. The project aims to establish pilot schools in three language communities as strong models of education for ethnolinguistic minority communities across Thailand. During Phase I of the project, teachers and parents alike have been impressed with the enjoyment and self-confidence that young children are showing in their studies (Pestalozzi Children's Foundation, 2010).

The evaluation was made on Phase II of this project. The specific aims of the MLE project (phase II, 2010 – 2012) are: 1) MLE program is strongly established in early primary years in six pilot schools across three ethnolinguistic minority communities (Mon, Karen, and Hmong), and 2) MLE program helps students in the project learn the national language better and thus achieve national learning standards in every subject.

Evaluation Objectives

1. To evaluate the output, outcome, and impact of the project.
2. To evaluate the project implementation.
3. To learn about factors and conditions effecting the project success and/or limitation.

Theoretical Framework

Theory-based evaluation (TBE) explores the how and why of program success or failure. Advocates of TBE claim that it produces information unavailable in traditional process and outcome studies (Weiss, 1997; Brickmayer and Weiss, 2000). Fitz – Gibbon, Morris and Lyons (1996) described TBE as an evaluation based on a model, theory or philosophy about how the program works; a model, theory, or philosophy which indicates the causal relationships supposedly operating in the program. The selection of program features to evaluate is determined by an explicit conceptualization of the program in terms of theory, a theory which attempts to explain how the program produces the desired effects – program theory – and then using this theory to guide the evaluation (Fitz – Gibbon et al.,1996; Rogers, Petrosino, Huebner, and hacs, 2000; Brickmayer and Weiss, 2000).

The exact features in a program theory to be included in the evaluation model are dependent upon key stakeholders' needs, resources available for research, and evaluators'

judgments. After these factors have been taken into consideration, the evaluation model will provide ideas on what kinds of data should be collected and what procedures are needed to analyze the data. Pertinent methods then are selected and applied to serve these needs. Hence, theory-based evaluation serve as a comprehensive framework for dealing with various evaluation needs (Chen, 1990). Furthermore, theory-based evaluation provide means for comparing data across evaluations and means for advancing social science in general, via theory testing (Fitz – Gibbon et al.,1996).

The theory in TBE can come from various sources. Some writers suggest that they should be social science theories with a reasonable scientific pedigree (Chen and Rossi, 1992 cited in Brickmayer and Weiss, 2000). Other authors try simply to set forth the logic that must be involved if a program is going to work, and they may even name the program theory a “logic model”(Coffman, 1999; McLaughlin and Jordan, 1999 cited in Brickmayer and Weiss, 2000; Sidani and Sechrest, 1999)..

A logic model is a graphic representation of a program’s planned resources, activities, and results. Using evaluation and a logic model results in more effective programs and offers better documentation of outcomes and shared knowledge about what works and why. One of the major features of a logic model is its ability to communicate in a concise manner the entire course of a program from implementation to its end. In addition, the process of creating a logic model allows decisions about data collection, program sequence, use and availability of resources, and program modification to be made in both systematic and public ways (W. K. Kellogg Foundation, 2001 cited in Bellini, S., Henry, D., & Pratt, C., 2011). Letts, L., Law, M., Pollock, N., Stewart, D., Westmorland, M., Philpot, A. & Bosch, J.(1999 cited in Stewart, D., Law, M., Russell, D., and Hanna, S., 2004) suggested that a key characteristic of logic model is that the “means” (what you do) and the “end” (the results or outcome of what we do) are separated, whereas “means” refers to the process of the program, and “end” are the outcomes.

In this evaluation, the following five categories are included in the logic model, modified from the work of the Kellogg Foundation (2001) as well as Letts et al.(1999):

1. *Inputs* are the resources that are made available for the planning, implementation and evaluation of projects; examples of inputs are human resources, funding, facilities, equipment, and community resources.
2. *Process* are what the program does with the resources. These interventions are used to bring about the intended outputs or outcomes.
3. *Outputs* are the direct products of program activities and may include types, levels, and targets of services to be delivered by the program (Bellini et al, 2011).
4. *Outcomes* are the change that occurred because the program outputs.
5. *Impact* is the fundamental intended or unintended change occurring in organizations, communities, or systems as a result of program activities.

Evaluation Method

This evaluation was conducted through the checking of causal relationship within the project. Thus, the model of causal relationship between input, process, output, outcome, and impact of the project was created in the initial stage of this evaluation; it is referred to as the logic model. Then, the logic model was used to formulate the conceptual framework of the project evaluation. Methods of data collection and analysis were selected to gather from different sources in order to cross-check and verify the validity of the data. This evaluation was executed in three stages. The detail of each stage is as follow:

1. Formulation of Logic Model for the Project

- 1.1 The evaluators spent sometimes to study about theories and approach concerning MLE-MTB learning and teaching.
- 1.2 Synthesis was made of theoretical approaches to produce a chart showing logic model of project components and the outcome.
- 1.3 This logic model was checked for its appropriateness by the evaluation team, project advisor and the project holder on the following issues:
 - 1.3.1 Are there sufficient details for clearer understanding and concrete relationship among different components?
 - 1.3.2 Is each component of the model a complete one?
 - 1.3.3 Is there coherent and interrelating validity?
 - 1.3.4 Is there identification of external factors and explanation of their influence?
- 1.4 Making adjustment of the logic model as shown in Chart 1 and applying the adjusted model to develop the evaluation framework.

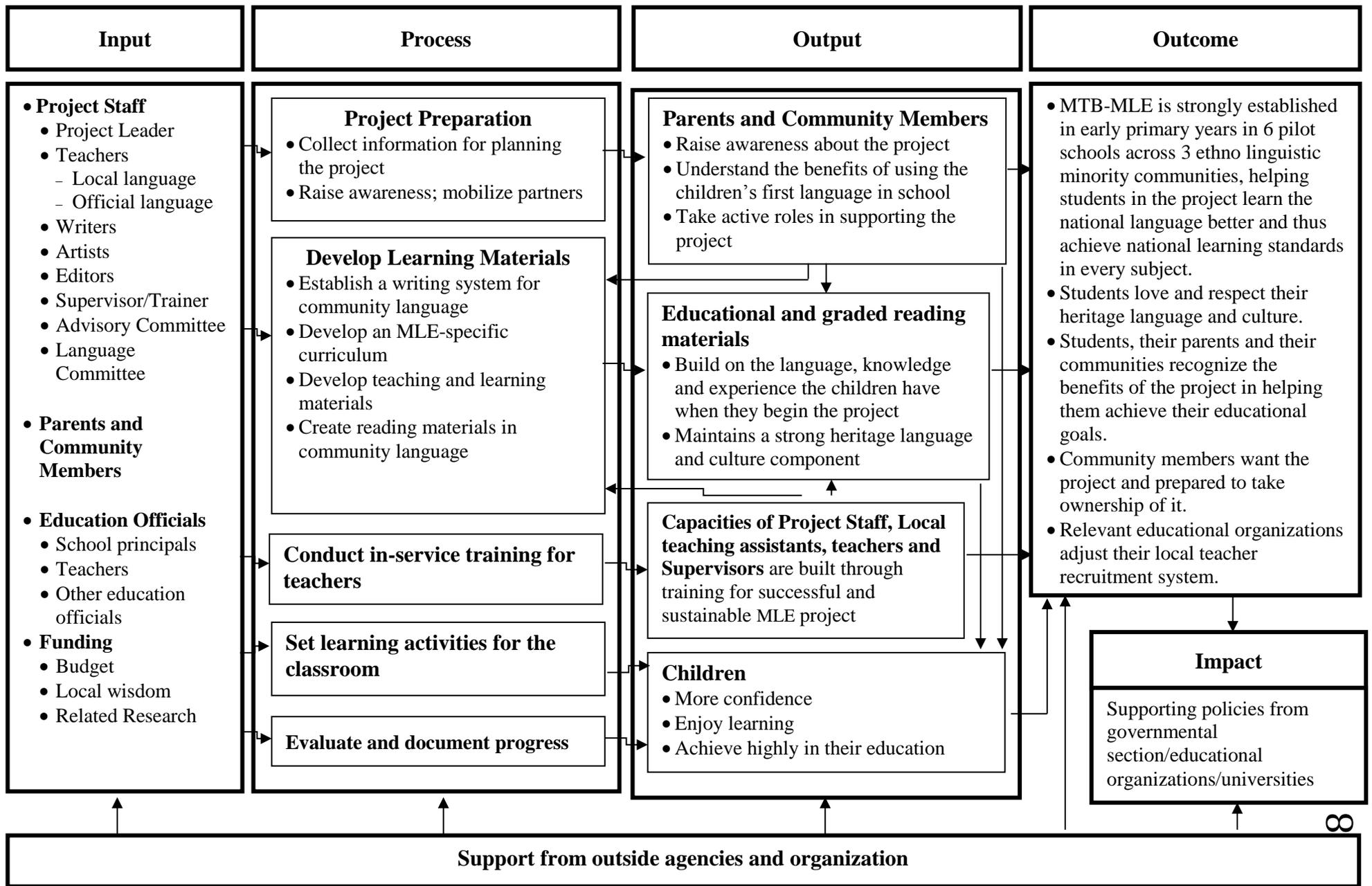


Chart 1 Logic Model for MTB-MLE Project

2. Developing Method of Project Evaluation

2.1. The evaluation team studied the logic model components of the project in order to design the evaluation framework.

2.2. The evaluation framework was reviewed by the evaluation team together with an advisor to the evaluation to consider its compatibility and relatedness in the logic model. The evaluation framework was shown in Table 1.

Table 1: Evaluation Framework of the MTB-MLE Project

Evaluation Method	Objective	Evaluation Question	Needed Data/ Indicator	Source of Data	Tools and Method	Analysis of Data	Evaluation Criterion
1. Evaluation of output, outcome, and impact of the project.	1. To study the output, outcome, and impact of the project.	1. What is the output of the project? Taking into account: 1.1 What is the level of awareness and understanding about the project and the roles of parents as well as community members?	1. An awareness and understanding about the project and the role of parents and community members in the project.	- Parents and community members.	- Interview with parents and community members about the project and their roles.	- Content analysis.	The output occurred following the project indicators.
		1.2 To what extent were the curriculum, learning material, and text books developed in relation to the old knowledge of the students and based on local language and culture?	2. Components and content of the curriculum, lesson plans, learning material, and text books.	- Curriculum, lesson plans, and learning material.	- To study the curriculum, lesson plans, learning material, and text books.	- Content analysis.	The output occurred following the project indicators.
		1.3 Have the ability and potentiality of the project staff, local and school teachers, and school supervisor been increased and how?	3. Evaluation result of knowledge and understanding of the project staff, local and school teachers, and school supervisor before and after the training. 4. Technical know-how in planning and teaching. 5. Knowledge and ability about supervision. 6. Performance of the trained project staff.	- Pre and post tests of the training. - Teaching performance. - Supervision record by school supervisor. - Evaluation result of project staff performance. - Project internal evaluation result.	- Documentary study. - Interview with project staff, local and school teachers, and school supervisor. - Classroom observation.	- Content analysis.	The output occurred following the project indicators.
Evaluation Method	Objective	Evaluation Question	Needed Data/ Indicator	Source of Data	Tools and Method	Analysis of Data	Evaluation Criterion
		1.4 Students feel confident and enjoy learning with better	7. Students' behavior showing confidence. 8. Students'	- Evaluation record of students' achievement. Students.	- Study of educational achievement of students joining the project.	- Content analysis.	- Students in pilot schools enjoy learning and be happy i

		achievement.	behavior in learning participation. 9. Students' achievement in education.	-Teachers. - Parents. - Community members.	- Behavioral observation of student performance in learning, self-confident, and courageous expression. - Interview with teachers, students, parents, and community members about students' behavior.		school with self-confidence. - Students' achievement in MTB-MLE project is higher than in controlled school.
		2. What is the outcome of the project? Taking into account: 2.1 Has the MTB-MLE project been accepted as the model schools for indigenous students and how?	1. List of agencies requesting their field visit to pilot schools in MTB-MLE project.	-School visitor's record book. - Letter requesting permission for a visit to pilot schools.	-Study of visitor's document on pilot schools visits.	-Content analysis.	-The pilot schools in the project represent model schools for indigenous students.
		2.2 Have the students performed better in Thai language and passed the O-NET measurement and how?	2. Expression of Thai language proficiency and communication. 3. Students' achievement in school.	- Students. - Teachers. - Parents. - Community members. - Record keeping of students' achievement.	- Behavioral observation of participatory learning. - Interview with teachers, students, parents, and community members. - Study of evaluation result of students' achievement in the project.	- Content analysis.	- The students understand and possess communication skill in Thai and local languages. - Students' achievement in MTB-MLE project and O-NET measurement.
		2.3 Do the students show affection and respect of their local language and culture and how?	4. Love and respect of local language and culture.	- Students. - Parents. - Community members. - School administrators. - School teachers.	- Interview with students, parents, community members, school administrators, and teachers in the project about student behavior.	- Content analysis.	- The students love and respect their local language and culture.
		2.4 Do the parents and community members perceive the usefulness of this project and how?	5. Opinion of the parents, and community members.	- Parents. - Community members.	- Interview with parents, and community members.	- Content analysis.	- The parents and community members see the usefulness of this project.
		2.5 Do the villagers want the project and possess their sense of ownership and how?	6. The people's need and sense of belonging of the project.	- Parents. - Community members.	- Interview with the parents and community members.	- Content analysis.	- Community members want the project and feel like owners of the project.
Evaluation Method	Objective	Evaluation Question	Needed Data/ Indicator	Source of Data	Tools and Method	Analysis of Data	Evaluation Criterion
		2.6 Has educational agency involved made an adjustment in recruiting the local teachers for this project and how?	7. Recruitment system of agency involved.	- School administrators. - School supervisor. - School District administrator.	- Interview with school administrator, supervisor, and School District administrator.	- Content analysis.	- Educational agency involved has adjusted the system of local teachers recruitment.
		3. How has	1. Clear policies	- School	- Interview with school	- Content	- Supportive

		<p>impact from the project taken place?</p> <p>3.1 Are there supportive policies from government sector and educational agency and how?</p>	<p>supporting the project by government sector and educational agency.</p>	<p>administrators. School supervisor. -School District administrator. - Parents. - Community members.</p>	<p>administrators, supervisor, School District administrator, parents and community members.</p>	<p>analysis.</p>	<p>policies have been formulated in a written language by the headquarters of school administration.</p>
		<p>3.2 Are there other impacts from the project on the students, schools, and communities and how?</p>	<p>2. Impact from the project on the students, schools, and communities.</p>	<p>- School administrators. - School supervisor. - School District administrator. - Parents and community members.</p>	<p>- Interview with school administrators, supervisor, School District administrator, parents and community members.</p>	<p>- Content analysis.</p>	<p>- Other impacts from the project on the students, schools, and communities.</p>
2.Evaluation of project implementation.	2. To evaluate the project implementation .	<p>1. Project input: 1.1 To what extent the characteristic of the officers involved conforms to the one determined by the project?</p>	<p>1. Characteristic of the project staff: 1.1 Project Leader. 1.2 Teachers. 1.3 Language/media developer. 1.4 School supervisor/resource person. 1.5 Advisor</p>	<p>- Document/ evidence reflecting individual characteristic. - Project staff.</p>	<p>- Documentary review of individual characteristic. - Interview form for people involved in the project.</p>	<p>- Content analysis.</p>	<p>- The characteristic of people involved in the project conforms to the determined one.</p>
		<p>1.2 Whether or not the parents and community members feel their need of the project as well as their preparation to be the project owner and how?</p>	<p>2. The need and the preparation of the parents and community members to become the project owner.</p>	<p>- Minutes of the meeting. - Parents. - Community members.</p>	<p>- Checking parents and community participation from the minutes of the meetings. - Interview with parents and community members.</p>	<p>- Content analysis.</p>	<p>- Parents and community members participate in the project.</p>
		<p>1.3 Have school administrators, teachers and other educators/agencies involved from the outside provided support to the project and how?</p>	<p>3. Supportive roles of school administrators, teachers, and educators/agencies involved from the outside.</p>	<p>- Administrators. - Teachers. - Other educators involved.</p>	<p>- Interview with administrators, teachers, and other educators.</p>	<p>- Content analysis.</p>	<p>- Administrators, teachers, and other educators support the project.</p>
Evaluation Method	Objective	Evaluation Question	Needed Data/ Indicator	Source of Data	Tools and Method	Analysis of Data	Evaluation Criterion
		<p>1.4 Has the budget been allocated following the plan and how? - From what source the budget has been allocated? - Has the budget been allocated following the plan of each provider agency and is it enough to cover all the activities? - How much is the average</p>	<p>4. The budget from different sources. 5. The budget allocated for each activity. 6. The budget received from all the sources.</p>	<p>- Receipt and expenditure statement of the project. - Project document showing budget allocation for each activity. - Project document relating to the budget allocation for each activity.</p>	<p>- Checking the record of receipt and expenditure in the project account book. - The budget being used for each activity. - Documentary study about the budget of the project.</p>	<p>- Content analysis. - Analysis of the average expenditure per capita of the students.</p>	<p>- Each supportive agency has allocated the budget for the project according to the plan with appropriate amount to cover the implementation .</p>

		expenditure per capita of the students?					
		1.5 Were the local wise men/women invited to participate in the project and how?	7. Roles and duty of the wise people participated in the project.	- Document/ evidence related to the local wise people and the project staff. - Local wise people.	- Documentary study. - Interview with local wise people and project staff.	- Content analysis from the documents and interview.	- Inviting the local wise people to participate in the project with clear roles.
		2. To what extent the project implementation has followed the 9 components of MTB-MLE project? Taking into account the following points: 2.1 Has there been any study of the data or research work related to the MTB-MLE project before its implementation and how? 2.2 Has there been any awareness raising/shared understanding and resource pool from the groups involved at different levels and how?	1. List of data/research works related to the project. 2. Relevancy and sufficiency of the data. 3. Preparation process before project implementation.	- Documents about the project. - Related data/research works. - Project staff. - School supervisor. - School administrators. - Thai teachers. - Local teachers. - Parents and community members.	- Documentary study of the project. - Study of the project documents on curriculum, text books, and lesson plan. - Interview with project personnel, school administrators, Thai teachers, local teachers, parents and community members about the project implementation.	- Content analysis.	- The actual project implementation conforms to the 9 components of the MTB-MLE project.
		2.3 Has there been the development of the writing system for communities with oral tradition and how?	4. The development process of writing system for communities with oral tradition.	- Project documents, curriculum, text books, lesson plan, project staff, school administrators, Thai teachers, local teachers, parents and community members.	- Study of project documents, curriculum, text books and lesson plan. - Interview with the project staff, school administrators, Thai teachers, local teachers, parents and community members.	- Content analysis.	- The actual project implementation conforms to the 9 components of the MTB-MLE project.
Evaluation Method	Objective	Evaluation Question	Needed Data/ Indicator	Source of Data	Tools and Method	Analysis of Data	Evaluation Criterion

		<p>2.4 Has there been curriculum development following multilingual education and how?</p> <p>2.5 Has there been any development of the reading text book following multilingual approach and how?</p> <p>2.6 Has there been a selection and development of personnel involved with the project before and during the project implementation and how?</p> <p>2.7 Were there learning activities following the curriculum and lesson plan that have already been set up and how?</p>	<p>5. The development of curriculum, text books, and lesson plan.</p> <p>6. The selection and development of project personnel.</p> <p>7. Learning activity in the classroom organized by the teachers.</p>	<ul style="list-style-type: none"> - Curriculum, text books, and lesson plan. - Project staff. - School supervisor. - School administrators. - Thai teachers. - Local teachers. - Parents and community members. 	<ul style="list-style-type: none"> - Study of project documents, curriculum, text books, and lesson plan. - Interview with project personnel, school administrators, Thai teachers, local teachers, parents and community members about the project implementation. - Observation of teaching and student behavior. 	<ul style="list-style-type: none"> - Content Analysis. 	<ul style="list-style-type: none"> - The actual project implementation conforms to the 9 components of the MTB-MLE project.
		<p>2.8 Were there follow-up and evaluation of the progress of project implementation and what was the result?</p> <p>2.9 Were there agencies from the outside giving support to the project implementation and what are the roles of each agency?</p>	<p>8. The result of the follow-up and evaluation of the project implementation.</p> <p>9. Roles and duties of agencies outside contributing to the project.</p>	<ul style="list-style-type: none"> - Report of interim evaluation. - School supervisor. - School administrators. - Parents and community members. 	<ul style="list-style-type: none"> - Study of the interim evaluation report. - Interview with school supervisor, school administrators, parents and community members. 	<ul style="list-style-type: none"> - Content analysis. 	<ul style="list-style-type: none"> - The actual project implementation conforms to the 9 components of the MTB-MLE project.
3. Evaluation of factors and condition affecting the success or the obstacle of the project.	3. To study the factors and condition affecting the success or the obstacle of the project.	<p>1. What are the elements of factors and condition affecting the success of the project?</p> <p>2. What are the elements of factors and condition posing the obstacle to the project?</p>	<ul style="list-style-type: none"> - Factors and condition identified in the logic model of the project in terms of input, process, output, outcome, and impact. 	<ul style="list-style-type: none"> - Related documents to the project. - Data from the data collection following the factors and condition identified in the logic model of the project. 	<ul style="list-style-type: none"> - Analyze and synthesize the data on factors and condition affecting the success or the obstacle of the project taken from the interview with all the target groups. 	<ul style="list-style-type: none"> - Analysis of the causal relationship between factors and output, outcome, and impact of the project. 	<ul style="list-style-type: none"> - Causal relationship between factors and output, outcome, and impact of the project conforming to the indicated logic model.

3. Implementation

3.1. Sources of data for this evaluation were documents about the project, project holder, project staff, School District administrators, school supervisors, school administrators, students, teachers, parents, and community members in three areas, namely 1) Mon community, Sangkhlaburi district, Kanchanaburi province; 2) Karen community(Phlong),

Hod district, Chiang Mai province; and 3) Hmong community, Theong and Wiang Kaen districts, Chiang Rai province.

3.2. Tools for data collection were an interview form, an observation form, and a field note.

3.3. Method of data collection and analysis consisted of documentary study of the project, classroom observation, arranging of learning atmosphere, use of learning kit, student's behavior during classroom teaching, interview with stake-holders in the project and all the people involved as well as field note recording. Then, the data from documentary study, observation, and interviews were analyzed to compare the actual practices with the designed activities indicated in the logic model of the project.

Results

The evaluation results could be summarized as follows:

1. Evaluation result of outputs, outcomes, and impacts of the project.

1.1 Outputs following the project objectives: curriculum and lesson plan were developed in all six pilot schools at all levels; project staffs, local and Thai teachers, and supervisors from the School District overseeing the pilot schools improved/developed their capacities through the training processes; stake-holders in the project, local communities, pilot schools, and Ministry of Education supported and participated in the project; students in pilot schools showed their self-confidence, enjoyed learning, and reached better learning achievement than their parallel schools.

1.2 Project Outcomes: MTB-MLE project was launched in three areas covering six pilot schools with its attempt to help the students to learn Thai language better, but the O-NET test scores will not be disclosed until the students finish Grade 3; students in pilot schools showed affection and respect to their local languages and culture; students, parents, and community members were aware of benefits from the project that it helped to reach educational achievement of the students, community members participating in project's work; and related educational agencies adjusted the local teachers recruitment system.

1.3 Project Impacts: Office of Basic Education Commission (OBEC) saw the importance of teaching and learning for indigenous students and clearly set up the policy and authorized agency at the departmental level. In addition, the budget was allocated for the development of teaching staffs, text book production, and coordination with outside agencies for project implementation.

2. Evaluation result of project implementation

2.1 Project input: characteristics of project staffs met the specified criteria; parents and community members were in need of and prepared for the project participation; school administrators, teachers, and the first line of command agency provided support and played clear roles in the project; and each supportive agency allocated the budget as it was planned.

2.2 Project implementation process:

2.2.1 Study and/or basic research was carried out by FAL for planning and developing the MLE program.

2.2.2 Activities that helped raising awareness and mutual understanding regarding the values of multilingual education were carried out.

2.2.3 Writing system was developed by the linguists together with local people and the system was approved by its users and government agencies.

2.2.4 Community members were invited to participate in the development and production process of reading materials in bilingual education.

2.2.5 Teaching manuals and materials were developed for a complete bilingual education; the strong selection process of local teachers was made to ensure the good qualification as determined in the project.

2.2.6 Trainings were provided for schools and local teachers regularly.

2.2.7 An internal evaluation process was also performed in the project. An evaluation of community appreciation was made on the project to measure the level of achievement in terms of educational and cultural goals.

2.2.8 Collaboration between OBEC, Office of Primary Education School District, pilot schools, Summer Institute of Linguistics (SIL), and Life Skill Development Foundation was set up.

2.2.9 Efforts were also made to influence the state policy; however, no clear policy has been set up until now.

3. Evaluation result on factors and conditions affecting the success of the project: causal relationships between inputs, processes, outputs, outcomes, and impacts of the project were proved to conform with the initial logic model used in the evaluation of the project as shown in table 2.

Table 2: Evaluation Result on Causal Relationship between Input, Process, Output, Outcome, and Impact of the Project

Mon, Kanchanaburi	Karen, Chiang Mai	Hmong, Chiang Rai
<p>Input</p> <p>Mon community received support in terms of personnel, capital, and educational assistance from educational personnel from the Office of Primary Education School District . The budget has been allocated to hire local teachers, produce teaching materials, and develop teachers' and supervisor's competency. Community leader and members have been appointed as members in the School Committee and they could bring in local knowledge to help develop teaching materials with the teachers in the project.</p>	<p>Input</p> <p>Karen community received support in terms of personnel, capital, and educational assistance from educational personnel from the Office of Primary Education School District. The budget has been allocated to hire local teachers, produce teaching materials, and develop teachers' and supervisor's competency. Community leader and members have been appointed as members in the School Committee and they could bring in local knowledge to help develop teaching materials with the teachers in the project.</p>	<p>Input</p> <p>Hmong community received support in terms of personnel, capital, and educational assistance from educational personnel from the Office of Primary Education School District. The budget has been allocated to hire local teachers, produce teaching materials, and develop teachers' and supervisor's competency. Community leader and members have been appointed as members in the School Committee and they could bring in local knowledge to help develop teaching materials with the teachers in the project.</p>

Mon, Kanchanaburi	Karen, Chiang Mai	Hmong, Chiang Rai
<p>Process</p> <ul style="list-style-type: none"> Preparation: FAL has gathered information in the area to prepare the project in advance before putting into practice. Meetings were held to explain to the villagers, but neutral project coordinator could not be identified in the community. Moreover, school administrators could not develop social rapport with 	<p>Process</p> <ul style="list-style-type: none"> Preparation: FAL has gathered information in the area to prepare the project in advance before putting into practice. Meetings were held to explain to the villagers through project coordinator coming from the community background. This led to clear understanding among villagers because they used the same 	<p>Process</p> <ul style="list-style-type: none"> Preparation: FAL has gathered information in the area to prepare the project in advance before putting into practice. Meetings were held to explain to the villagers through project coordinator coming from the community background. This led to clear understanding among villagers because they used the same

<p>the villagers. Thus, the effort to reach mutual understanding could not be fully accomplished. Some School Committee members and villagers did not understand the work of the project.</p> <ul style="list-style-type: none"> • Capacity building for teachers and supervisors has been provided continuously every year with the support of resource persons from FAL, but the travel cost was allocated by the school and the Office of Primary Education School District. • For the development of learning materials in Mon community, the conflict occurred when the Thai script was introduced to communicate in Mon language. Some parents and School Committee members who did not understand the work of the project decided to move their children to other schools. • The development of curriculum, lesson plan, and reading materials has been done together between official and local teachers and they were checked by the local wise people. Schools have applied this curriculum, lesson plan, and learning materials into practice. Both Thai and local teachers worked in harmony that they helped each other to develop and adjust the lesson plan to get along well with and most suitable for the school context. 	<p>language. In addition, school administrator has been accepted by the community that he aimed and determined to accomplish his work. Consequently, mutual understanding was reached with the villagers and cooperation was achieved positively.</p> <ul style="list-style-type: none"> • Capacity building for teachers and supervisors has been provided continuously every year with the support of resource persons from FAL, but the travel cost was allocated by the school and the Office of Primary Education School District. • The development of learning materials was well cooperated by the villagers which led to the good quality materials. • The development of curriculum, lesson plan, and reading materials has been done together between official and local teachers and they were checked by the local wise people. Schools have applied this curriculum, lesson plan, and learning materials into practice. However, working together between the Thai and local teachers did not run smoothly, because the local teachers felt that Thai teachers shared lesser responsibility. 	<p>language. In addition, school administrator has been accepted by the community that he aimed and determined to accomplish his work. Consequently, mutual understanding was reached with the villagers and cooperation was achieved positively.</p> <ul style="list-style-type: none"> • Capacity building for teachers and supervisors has been provided continuously every year with the support of resource persons from FAL, but the travel cost was allocated by the school and the Office of Primary Education School District. • The development of learning materials was well cooperated by the villagers which led to the good quality materials. • The development of curriculum, lesson plan, and reading materials has been done together between official and local teachers and they were checked by the local wise people. Schools have applied this curriculum, lesson plan, and learning materials into practice. However, working together between Thai and local teachers was problematic concerning roles and duty of each party.
Mon, Kanchanaburi	Karen, Chiang Mai	Hmong, Chiang Rai
<ul style="list-style-type: none"> • Supervision: teachers were supervised for their teaching and recommendations were made by the President of FAL continually, but with limitation in the sense that there were too many turnovers of supervisors and led to discontinuity of supervision. 	<ul style="list-style-type: none"> • Supervision: teachers were supervised for their teaching and recommendations were made by the President of FAL continually. The strong point of this area was that the same supervisor has been responsible for his task since the beginning of the project leading to good understanding of the project and better supervision. 	<ul style="list-style-type: none"> • Supervision: teachers were supervised for their teaching and recommendations were made by the President of FAL continually. The strong point of this area was that the same supervisor has been responsible for his task since the beginning of the project leading to good understanding of the project and better supervision.
Project Output	Project Output	Project Output

<ul style="list-style-type: none"> • Awareness raising and the sense of ownership of the project could not be met as expected. Because some villagers did not understand and disagreed with the project. They kept waiting for the result when the students finished Grade 3. There was communication gap with the School Committee members and villagers. School administrators could not create social rapport with the community as well as the absence of project coordinator with local background. • The continuity of capacity building for the teachers and supervisor led to the situation where teachers gained better knowledge and skill in instructional arrangement and producing learning materials by themselves. However, supervision showed discontinuity, due to too often turnover of supervisors. Thus, school supervision had to rely on the President of FAL. 	<ul style="list-style-type: none"> • It was found that the majority of villagers understood and agreed with the project that they were ready to support the project fully in every aspect, except for the budget because of their poverty. • The continuity of capacity building for the teachers and supervisor led to the situation where teachers gained better knowledge and skill in instructional arrangement and producing learning materials by themselves. While school supervisor made good advisory task and offered recommendations to improve the teaching and learning, including the ability to provide teachers' training with an advisor from FAL. 	<ul style="list-style-type: none"> • It was found that the majority of villagers understood and agreed with the project that they were ready to support the project fully in every aspect. Community leader who was also a member of Tambon Administrative Organization (TAO) prepared to allocate some budget in case FAL could not support. • The continuity of capacity building for the teachers and supervisor led to the situation where teachers gained better knowledge and skill in instructional arrangement and producing learning materials by themselves. While school supervisor made good advisory task and offered recommendations to improve the teaching and learning with the coaching from FAL President.
<ul style="list-style-type: none"> • Outcome of the students: Parents and community members were in consent that the students in the project showed more self-confidence and expression and that they had good command of reading and writing Thai language and understood better what they learned up to the point that they could explain concepts and content. 	<ul style="list-style-type: none"> • Outcome of the students: Parents and community members were in consent that the students in the project showed more self-confidence and expression and that they had good command of reading and writing Thai language and understood better what they learned up to the point that they could explain concepts and content. 	<ul style="list-style-type: none"> • Outcome of the students: Parents and community members were in consent that the students in the project showed more self-confidence and expression and that they had good command of reading and writing Thai language and understood better what they learned up to the point that they could explain concepts and content.
Mon, Kanchanaburi	Karen, Chiang Mai	Hmong, Chiang Rai
<ul style="list-style-type: none"> • Outcome of the students and community members: It was found that once the students were able to read and write Thai language and understood the detail better with the text books integrating local culture and tradition, the result was clear that the students have developed their love and respect of their local culture and tradition and saw the benefit of using local language in school. However, the villagers still lack of the sense of ownership of the project. This could be the result of lack of understanding about the work of the project. 	<ul style="list-style-type: none"> • Outcome of the students and community members: It was found that once the students were able to read and write Thai language and understood the detail better with the text books integrating local culture and tradition, the result was clear that the students have developed their love and respect of their local culture and tradition and saw the benefit of using local language in school. The villagers developed the sense of ownership of the project resulting from better understanding of the project implementation and the empirical evidence happened to the students. 	<ul style="list-style-type: none"> • Outcome of the students and community members: It was found that once the students were able to read and write Thai language and understood the detail better with the text books integrating local culture and tradition, the result was clear that the students have developed their love and respect of their local culture and tradition and saw the benefit of using local language in school. The villagers developed the sense of ownership of the project resulting from better understanding of the project implementation and the empirical evidence happened to the students.
<ul style="list-style-type: none"> • Impact on the project: At the policy 	<ul style="list-style-type: none"> • Impact on the project: At the policy 	<ul style="list-style-type: none"> • Impact on the project: At the

<p>level, administrators of the Office of Primary Education School District perceived of the importance of education provision following the project approach by assigning responsible personnel clearly and provided financial support for capacity building of teachers and supervisors.</p>	<p>level, administrators of the Office of Primary Education School District perceived of the importance of education provision following the project approach by assigning responsible personnel clearly and provided financial support for capacity building of teachers and supervisors.</p>	<p>policy level, administrators of the Office of Primary Education School District perceived of the importance of education provision following the project approach by assigning responsible personnel clearly and provided financial support for capacity building of teachers and supervisors.</p>
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Discussion

The objectives of this evaluation were to evaluate the output, outcome, and impact of the project, to evaluate the project implementation and to learn about factors and conditions affecting the project’s success and/or limitations. This discussion addresses the three goals of the evaluation:

1. Output, outcome, and impact of this project

Project Outputs: The evaluation results indicated that this project achieved the objectives of the project. Curricula and lesson plans were developed in all six pilot schools at all levels and project staff, local and Thai teachers, and supervisors from the school districts overseeing the pilot schools were trained as planned. Stake-holders in the project, local communities, pilot schools, and the Ministry of Education also supported and participated in the project. The results revealed that the selection of community personnel to participate as advisors in the project should focus on community leaders who have been accepted by the majority of villagers. In addition, members of the local administrative organization should be invited to play an advisory role. It is believed that this will affect the level of awareness and acceptance from the communities and may influence the budget allocation from the local administrative organization.

Students in pilot schools showed self-confidence, enjoyed learning, and reached better learning achievement than their parallel schools. This is the result of appropriate and well designed reading materials and instruction, which included monitoring and follow-up of the teaching and learning. In addition, research confirms that children’s ability to learn a second or additional language does not suffer when their mother tongue is the primary language of instruction throughout primary school (UNESCO, 2011).

Project Outcomes: The MTB-MLE project was launched in three areas covering six pilot schools and its main goal was to help students to learn Thai language better. Parents and community members were in consent that the students in the project showed more self-confidence and expression and that they had a good command of reading and writing Thai and understood better what they had learned to the point where they could explain concepts and content. In addition, it was found that once the students were able to read and write in Thai and understand the detail better with the text books integrating local culture and tradition, it was clear that the students had developed a better understanding of their local culture and tradition and saw the benefit of using the local language in school. The villagers developed a sense of ownership of the project resulting from better than prior understanding of the project implementation and the empirical evidence of students’ achievements, as identified in the logic model. According to UNESCO (2007), successful MTB-MLE projects require cooperation and support from many people, most importantly community members who need to desire the project’s success and who are prepared to take ownership of it.

Project Impacts: Administrators at the Office of Primary Education School District perceived the importance of providing education in the manner of the project and assigned personnel and provided financial support for capacity building of teachers and supervisors. Policy making by OBEC and the Office of Primary Education School District to organize the

teaching following a multilingual approach at the local and national levels and the allocation of an operational budget could lead to the long-term sustainability of this project. A review of MTB-MLE projects reveals that success and sustainability depend on cooperation among a variety of stakeholders with local communities working in partnership with the Ministry of Education (MOE) or other implementing agency. They also require good policies (Malone, 2007).

2. Project implementation

The evaluation showed that all three communities received support in terms of personnel, capital, and educational assistance from the Office of Primary Education School District compatible with the inputs as identified in the logic model. The budget was allocated to hire local teachers, produce teaching materials, and develop teachers' and supervisors' competency. Community leaders and members were appointed as members of the school committee and they were able to bring in local knowledge to help develop teaching materials to be used in the project.

In addition, the evaluation also showed that FAL has gathered information in the area to prepare the project in advance before putting into practice. The development of curriculum, lesson plan, and reading materials has been done together between official and local teachers and they were checked by the local wise people. Capacity building for teachers and supervisors has been provided continuously every year with the support of resource persons from FAL, but the travel cost was allocated by the school and the Office of Primary Education School District. Project internal evaluation was made by its staff. Collaboration between OBEC, Office of Primary Education School District, pilot schools, SIL, and Life Skill Development Foundation has been set up. Efforts have been made to push to the policy level of the state, but so far, there was no clear policy in writing on the issue.

These results indicated that the project was implemented as identified in the logic model, which consisted of nine components of a successful MLE project; namely, preliminary research to collect information for planning the project; awareness-raising and mobilization at local, state, national and international levels; orthographies/writing systems that are acceptable to the speakers and to the appropriate government agencies; teaching and learning materials that build on the learner's language and culture and ensure that they achieve grade level competencies in each subject; graded reading materials in the learner's home language and in the official language; MLE staff with the training and support needed for long-term success; evaluation and documentation of each component of the project, including learners' academic progress; cooperation among supporting agencies; and supportive political environment (Malone, 2003; UNESCO, 2007).

3. Factors and conditions affecting the project success and/or limitations.

The evaluation result on causal relationships between input, process, output, outcome, and impact of the project as appeared in the logic model showed that the project implementation was done successfully. The evaluation result of project output revealed that the majority of villagers in Karen community and Hmong community understands and agrees with the project. But, for the Mon community, the majority of villagers do not seem to recognize the importance of and disagree with the project. Thus, it can be said that awareness rising and the sense of project ownership cannot be met among villagers within the Mon community as expected. Furthermore, it was found out that the factors that could affect the awareness and understanding of villagers regarding the benefits of the project were: school administrators and a project coordinator. The school administrators were accepted by the community since he had a determination in accomplishing his work. As for the project coordinator, even though he/she is the person from the same locality as the villagers and hence, is able to communicate with the villagers. It is important for him/her to be accepted by the community. According to the literature (UNESCO, 2007), awareness-rising should focus

on both the educational and the cultural value of multilingual education. Therefore, the schools administrators and project coordinator are the key factors to the success of community's awareness and understanding.

In addition, the educational and graded reading materials were developed and applied for each language. The materials were built from the cooperation among Thai and local teachers, local wise people and FAL. Based on the evidence (UNESCO, 2007), early reading materials should be in the children's home language, written by mother tongue speakers about familiar people, places and activities. Also, experiences in language communities throughout Asia and the Pacific explain that fluent mother tongue speakers can produce an enormous variety of mother tongue materials in their languages. Thus, the materials used in the project were created in its own community language and involved people from different groups to work as a team.

The evaluation of project output also showed that continuous training and supervisions performed by resource people from FAL were able to build the capacity for local and Thai teachers, and project staff. Besides, the evaluation result showed that children felt more confidence and enjoyed learning. They also achieved highly in their education. These characteristics were developed because there were plenty of educational and graded reading materials which were created in local language that helped promote their learning ability. Local teachers also played an important role as they are able to communicate in local language. Additionally, Thai and local teachers, and project staff were continuously trained with the purpose of developing their teaching skill. The findings were congruent with the literature as evidence shows that MTB-MLE programs ensure that students achieve educational competencies or standards established by education officials for each grade when they....1) Use the L1 (the children's first language) only for teaching in the early grades, as students are learning basic communication skills in the L2 (second language) and 2) Use the L1 with the L2 for teaching in later grades, as students gain fluency and confidence in using the school language for learning academic concepts (Susan Malone, 2007).

Also, it was found out that MTB-MLE is strongly established in early primary years in 6 pilot schools across 3 ethno linguistic minority communities as a result of parents and communities recognize the importance and benefits of the project. Their recognition resulted from awareness raising and mobilization activities that provide information which help encourage people to work together in planning, implementing and supporting their project (UNESCO, 2007).

Besides, the evaluation result showed that children gained more confidence, enjoyed learning and developed their understanding towards the content because of learning and teaching activities developed to be used in the project. These activities are the key factors which have a strong impact on students love and respect to their heritage language and culture. Students, their parents and the communities recognize the benefits of the project in helping them achieve their educational goals. The community members accepted the project and prepared to take ownership of it.

As for the evaluation of the project impact, it was found out that the Office of Primary Education School District supported the project by providing the budget for training Thai and local teachers and developing the educational and graded reading materials. Thus, it can be said that the administrators at higher level recognize the importance and benefits of the project and this results from the process of awareness-raising and mobilization used in the project and the achievement occurred with the children and communities. As can be seen from the literature, policymakers and other authorities must be mobilized to establish political (and financial) support for MTB-MLE project. Before they can do that, they need to understand the purposes and benefits of the project. Language communities and their support network can take the first step in building a supportive political environment by starting their

own small-scale project outside the formal educational system. The success of these individual projects can be the powerful statement regarding the value of MLE and help to encourage others to begin building the necessary political support (UNESCO, 2007).

Conclusions

The evaluation of supporting multilingual education for ethnic minority in Northern Thailand project was performed using the logic model as a framework. The elements of input, process, output, outcome, and impact for the evaluation were clearly identified in the model and was developed by project holder, evaluation team and project advisor before the start of the evaluation. A combination of quantitative and qualitative methods of the evaluation was then used to measure the identified output, outcome, and impact of the project.

The evaluation results show that the logic model can be served as a useful framework for the evaluation. The model also helps guiding evaluators and project staff in using a systematic approach to conducting a project evaluation. The results also provide valuable information regarding key success factors of MTB-MLE project such as people to be involved in the project, parents' and communities' attitudes and behaviors, individual and social factors affecting proficiency in the language of instruction, quality of instruction and teaching and learning materials, the political and economic environment, and cooperation among supporting agencies. Based on experience and results of the evaluation, this kind of systematic approach to project evaluation appears to be a viable and useful option for other multilingual education (MLE) project.

Recommendations for the Project Holder

1. Data/information collected by other research networks whose work was among the indigenous peoples can be used for the development of a curriculum which is responsive to the local situation.
2. The supervisor/resource person for the project should be proficient in speaking, reading, and writing both in the first and second languages.
3. Information and communication technology should be introduced for multilingual education. This will reduce expenditure on the production of learning materials.
4. Creating cohesion through Thai and local teachers working together can affect the quality of teaching and learning in the classroom.
5. FAL and its network should launch a campaign together to lobby the agency overseeing schools to formulate a clear and transparent policy that can be examined and to allocate a budget for the sustainable operation of the MTB-MLE project.
6. Efforts should be made to bring into the network of PCF partners representatives from different indigenous organizations in Thailand. This would help create awareness of MTB-MLE among indigenous communities and the state in order to influence the making of policy at the national level. This may contribute to the sustainability of the MTB-MLE project.

Recommendations for Further Study

1. The results of this evaluation suggest that the project logic model was a useful way to organize this evaluation. The model promoted ongoing communication between the evaluation team and project staff. Based on the experience and results of this evaluation, this systematic approach to project evaluation appears to be a viable and useful option for other MTB-MLE projects.
2. Situation analysis and assessment of language usage should be studied in each geographical area.

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Educational Consequences of Australia's Shift towards Asia in the Twenty First Century



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Abstract

In October 2012 the Prime Minister of Australia, Julia Gillard, launched the policy Australia in the Asian Century. The philosophical thrust of the document was that Australia's future will be linked more closely to Asia. In establishing the government's direction for Australia's future the writers of the policy advocated numerous changes to various institutions, including education. In this paper, which focuses on the education section of the policy, the author will examine why this document was published at this particular time; who was selected to write it, what recommendations for change were made, and the underlying ideology behind the paper. Employing a critical policy approach the author will also examine the silences in the document, hence unmasking the conflicting perspectives on the role of education in Australian society. Whilst it will be argued that the document has merit, it will also be argued that there are inherent dangers in the Australian government's current approach towards Asia.

