

# ICET 2014

## 58<sup>TH</sup> WORLD ASSEMBLY

Moving forward in curriculum, pedagogy and leadership

June 16 to 19, 2014  
University of Ontario Institute of Technology  
Oshawa, Ontario, Canada

# 58th Yearbook of Teacher Education

Edited by Shirley Van Nuland

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## **The International Council on Education for Teaching 58<sup>th</sup> World Assembly**

The University of Ontario Institute of Technology in Oshawa, Ontario, Canada hosted the World Assembly June 16 – 19, 2014 with the theme *Moving Forward in Curriculum, Pedagogy and Leadership*.

ICET 2014 focussed on systematic approaches to improving excellence in all aspects of teacher education and development. As a unique research conference, different communities come together: researchers, policy makers, and practitioners. While there is the opportunity for proposals to be refereed, and for people to write research papers, teacher education and school leadership-related policy and practice initiatives are also welcomed and encouraged.

The invited papers and presentations included the following five strands:

**Pedagogy and Practice** (e.g., curriculum, assessment and evaluation, best practices, teaching and learning strategies, numeracy and literacy, supporting teachers and students)

**Inclusion and Justice** (e.g., mental health issues, special education, aboriginal education, social justice, peace education)

**Online and Distance Education** (e.g., e-learning, m-learning, online learning, online mentoring, tools, multi-literacies, open educational resources)

**Politics and Policy** (e.g., governance of education, school leadership, impact of policy, school improvement, education issues)

**Education for Sustainable Development** (e.g. participatory teaching and learning, issues in sustainable development, environmental issues)

Proposals were refereed or non-refereed. Refereed proposals may include individual and / or multiple authored papers and symposia. Accepted refereed papers will be included in conference proceedings. Non-refereed proposals may consist of a paper, roundtable session, or workshop/interactive symposium. Paper sessions and multiple-paper symposia are intended to report summaries of ongoing or final research results, to provide a brief analysis of issues of policy and practice, or to report teacher education initiatives. Roundtable sessions are intended for small group-focused discussions of research in progress, practitioner experiences, school improvement initiatives and issues in teacher education, professional development and leadership. Workshops/interactive symposia are intended to be interactive sessions where researchers, practitioners or policymakers present a theme without writing a paper. The intention is to maximize dialogue.

Refereed papers were to include as many of the following as applicable: objectives or purposes of the research; perspective(s) or theoretical framework; methods, techniques or modes of inquiry; data sources or evidence; results and/or conclusions/points of view; educational importance of this study and connection to the themes of the assembly. The 58<sup>th</sup> World Assembly Proceedings follow.

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## **Message from the Chair of the International Council on Education for Teaching**

**Dr. Maria Assunção Flores**  
**Chair of the ICET Board of Directors**

### **Welcome to the 58<sup>th</sup> ICET World Assembly 2014**

On behalf of the Board of Directors, I would like to welcome you to the 58<sup>th</sup> World Assembly of the International Council on Education for Teaching at the University of Ontario Institute of Technology, Oshawa, Ontario, Canada.



ICET's main focus is to promote a high quality education for all learners by educators who are appropriately qualified and recognized as motivated and committed professionals and practitioners. As such

ICET's mission is to improve the educational experiences and outcomes of learners in all parts of the world by providing opportunities for those involved in their education to share knowledge, practice, resources, and expertise and establish active partnerships that are designed to enhance the quality of teaching and learning and improve life opportunities for young people.

The 2014 World Assembly in Canada entitled "Moving Forward in Curriculum, Pedagogy, and Leadership" will provide opportunities for all participants from different parts of the world to share and discuss their ideas and enhance their knowledge in this field. Curriculum, Pedagogy and Leadership are key concepts to better understand and improve the education of teachers and students worldwide. I encourage all participants to work collaboratively and to participate in the various programme offerings. Your perspectives in the discussions, meetings and activities throughout the conference will enrich your own and others' experiences. Also, do find time to participate in the social activities.

Planning and organizing an event such as the WA of ICET is not an easy task. So, I would like to express my gratitude to Shirley van Nuland and her team who have organized such a great event. Thank you very much.

Welcome to the WA 2014 and please enjoy your time with colleagues and friends.

Maria Assunção Flores

## Message from the President of the International Council on Education for Teaching

**Dr. James O'Meara**

**President of the International Council on Education for Teaching**



Welcome to the 58<sup>th</sup> World Assembly of the International Council on Education for Teaching (ICET)!

The conference provides an opportune moment to shine a light on the individuals and organizations from around the world who are working to *move forward curriculum, pedagogy, and leadership*. ICET World assemblies are not traditional research conferences. The intentionally smaller 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 Associate Professor Shirley Van Nuland for making an ICET World Assembly a reality for our delegates who have travelled to Oshawa, Ontario, Canada. May I also take this opportunity to thank the local organizing committee for all their work with our presenters, the conference program and assisting our delegates with travel and accommodation arrangements. A special thank you also needs to be extended to our presenters who have travelled to this conference to share their wisdom and create opportunities for future collaboration.

ICET members always look forward to our events as they provide an intimate space to catch up on global developments in 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 at the gala dinner.

Finally, I would also like to invite you to visit our new website at <http://icet4u.org/>. We have been working hard over the last 12 months to improve our site and create even more benefits for ICET members. I encourage you to talk to our Board Members about the benefits of membership and the process for applying for Board Membership

I look forward to meeting with you during the 58<sup>th</sup> ICET World Assembly.

Professor James O'Meara,  
Director Advanced Studies in Teaching, National Louis University  
President of ICET

## **Message from the Vice-President – Research, Innovation & International, UOIT**

**Dr. Michael Owen**  
**University of Ontario Institute of Technology**  
**Vice-President – Research, Innovation & International**

Welcome to the University of Ontario Institute of Education and our Faculty of Education, to the City of Oshawa and the Region of Durham, and, for our international guests, to Canada.

The University of Ontario Institute of Technology (UOIT) is pleased to host The International Council on Education for Teaching (ICET) 58<sup>th</sup> World Assembly.



As I reviewed the program for your conference, I was much impressed by the scope and content of the papers and plenary sessions. You are addressing issues that are critical for improving the quality of education today and, importantly, issues that will shape the future of our educational systems.

I wish to thank Dr. Shirley Van Nuland and the organizing committee to coordinating such an inspiring program and to the delegates for your thoughtful consideration of challenging practical concerns affecting teacher education and professional development, curriculum development and implementation, inclusion and social justice, and student retention and engagement.

I look forward to attending some of the sessions and learning from you.

I trust that you will take this opportunity to build professional and research partnerships as well as last personal friendship. Take time to enjoy the many cultural and entertainment opportunities in Oshawa, the Region of Durham and the Greater Toronto Area.

All the best for your stay in Oshawa and at the University of Ontario Institute of Technology and safe travels home.

## Keynote Speakers

### **Dr. Michael Salvatori**

**Chief Executive Officer and Registrar of the Ontario College of Teachers**

Dr. Salvatori will speak on Monday June 16 2014 at 10:00 a.m. at the Opening of the Assembly



**Dr. Salvatori** was appointed to his current position in June 2009 following a 25-year career in public education. Prior to his appointment to lead Canada's largest self-regulatory body with over 235,000 members, Dr. Salvatori has served as an elementary and secondary school core French and French immersion teacher and has taught in Canada, France and Italy. He has also served as a vice-principal, principal, Director of the Ontario College of Teachers' membership services department and as an assistant professor at Glendon College of York University, jointly appointed to the Faculty of Education and the Department of French Studies. He holds a PhD in Curriculum, Teaching and Learning in the Second Language

Education program from the University of Toronto. His areas of research include teacher language proficiency within the context of additional language teaching and diversity in teaching.

### **Dr. Lee Maracle**

**University of Toronto**

**The Traditional Teacher for First Nation's House**

Dr. Maracle will speak at the Opening of the Assembly on Monday June 16, 2014 at 10:00 a.m.

**Dr. Maracle** is the author of a number of critically acclaimed literary works including: *Sojourner's and Sundogs* [collected work of novel and short stories], *Polestar/Raincoast*, *Ravensong* [novel], *Bobbi Lee* [autobiographical novel], *Daughters Are Forever*, [novel] *Will's Garden* [young adult novel], *Bent Box* [poetry], *I Am Woman* [creative non-fiction], and is the co-editor of a number of anthologies including the award winning publication, *My Home As I Remember* [anthology] Natural Heritage books. Ms. Maracle is published in anthologies and scholarly journals worldwide.



Ms. Maracle, a member of the Sto: Loh nation, is the mother of four and grandmother of seven. She is currently an instructor with the Centre for Indigenous Theatre and the S.A.G.E. [Support for Aboriginal Graduate Education] as well as the Banff Centre for the Arts writing instructor. In 2009, Maracle received an Honorary Doctor of Letters from St. Thomas University and the Queen's Diamond Jubilee Medal for her work promoting writing among Aboriginal Youth. Maracle has served as Distinguished Visiting Scholar at the University of Toronto, University of Waterloo, and the University of Western Washington.

**Dr. Isabel Pedersen**  
**Canada Research Chair in Digital Life, Media and Culture**

Dr. Pedersen will speak on Wednesday June 18, 2014 at 9:00 a.m.

**Dr. Pedersen is an** Associate Professor in the Faculty of Social Science and Humanities at the University of Ontario Institute of Technology in Oshawa, Canada. Her research builds upon work that questions how technology frames human identity. By using communication theories and humanities methods, she brings further understanding about the impact of emergent digital media on life and culture. New digital devices are often invented and embraced by society before we are able to understand the impact they have on our lives, culture, art and social practices. Dr. Pedersen investigates how computer devices and gadgets worn on the body alter the ways people interact with others and participate in culture. As well, she is exploring how digital media frame parts of our humanity and alter the course of technological invention and creativity.



She is the author of *Ready to Wear: A Rhetoric of Wearable Computers and Reality-Shifting Media*. Parlor Press (2013) a book about the future but one geared to the present. Her book explores how and to what ends wearable inventions and technologies augment or remix reality, as well as the claims used to promote them.

**Dr. Tony Townsend**  
**Chair in Public Service Educational Leadership & Management**

Dr. Townsend will speak on Tuesday June 17, 2014 at 3:30 p.m.



**Dr. Townsend** commenced as Chair of Public Service, Educational Leadership and Management at the University of Glasgow in January 2009. Prior to that he spent five years as Professor and Chair of the Department of Educational Leadership in the College of Education at Florida Atlantic University, and more than 20 years in the Faculty of Education at Monash University in Australia.

Tony has given numerous lectures, workshops, conference papers and presentations in the areas of school effectiveness and improvement, leadership, community education, policy development and school and community administration in over 40 developed, and less developed countries.

He has worked with ministries and departments of education, school communities, professional associations and business organizations in the areas of strategic planning and accountability, leadership and community relationships, and improving student engagement, all focusing on maximizing student attitudes and achievement. His research interests include school effectiveness and improvement, school restructuring with a particular emphasis on public education, educational leadership, student engagement, strategic planning, global education and community education and development.

## **Mentorship and University Lecturers' Professional Growth: Implication for Sustainable Educational Development in South-South Nigeria**

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**Abstract:** *Survey data collected from 1132 university lecturers in south-south zone of Nigeria were analyzed to determine the influence of mentoring on their professional growth. The subjects, 673 males and 459 females were selected using the stratified random sampling technique. In the study, one question was answered using simple percentages and one null hypothesis tested using the Independent t-test. The findings showed that 63.8% of the subjects had the opportunity of being mentored professionally, while 36.2% have never been mentored. The findings have also revealed among others, that mentoring has a significant influence on lecturer's growth in the area of conference attendance, community service and research orientation. However, mentoring had no significant influence on the total publications of lecturers. It is recommended among others, that as an effort to facilitate sustainable educational development in south-south zone of Nigeria, academic mentoring should be institutionalized in the university system.*

**Keywords:** Mentorship, South-South, Universities, Nigeria

### **Introduction**

The goal of education is to produce well integrated individuals who can adequately contribute to the social, economic, scientific and technological advancement of the country. In all societies, the peak of educational process is at the university level, where the instructional services are delivered by lecturers. A fresh recruit into the university, primarily goes into the teaching system with a Ph.D degree in his/her field of specialization. From that position, he/she climbs the slippery professorial ladder of teaching, carrying out research, publishing and undertaking community service and climaxing at the professorial chair. A smooth ride from lecturer to professor does not come the easy way for many. A high proportion of those who choose to teach at the university level, still serve and retire in the system without attaining the post of professor. Some are able to make it a few years before their retirement. Only the hard working and focused tend to make the professorial chair on record time. The truth is that, in the Nigerian university system, new and junior faculty members often get lost in the system due to the absence of institutionalized guidance in terms of clarity of their roles, responsibilities and performance expectations (Agunloye, 2013). Promotions and career growth prospects often progressively diminish leading to a feeling of discontentment, low morale and frustration, as well as financial and other losses.

Most often, when frustration sets in, they often lead to some lecturers being vulnerable to some unwholesome acts, in addition to teaching ineffectiveness and poor development of students. (Ajake, Amalu & Usang, 2009). In almost all universities, some lecturers hardly spend adequate time to prepare for their lectures, carry out quality research, attend conferences or even,

engage in any meaningful community service. This happens in spite of the efforts being made to ensure that universities in Nigeria do come up high in the ranking of universities internationally.

In a typical Nigerian university, an academic staff is employed and left on his/her own. There is neither orientation for newly recruited ones, not a system of mentorship to provide guidance or professional modeling system to help in the nurturing of needed academic culture. All a fresh entrant knows is that, he/she has to publish or perish (meaning that each needs publications to move from one position to another). The perspective in this paper is that university lecturers in Nigeria would get better adapted for professional growth if there is in existence an institutionalized system of mentorship. The central focus of mentoring is that learning through knowledge and skill acquisition, requires the sharing of responsibilities between the mentee and the mentor (Zachary, 2000). Mentoring is a process of consciously building a mutual relationship between junior and senior professional colleagues for the purpose of promoting personal and professional growth, principally of the junior one. The more experienced and skilled professional (mentor) guides and nurtures the less experienced colleague (Mentee). Thus, fostering professional growth and development of the mentee (Daresh, 2001).

The purpose of this study was two-fold: first, to establish the proportion of university teachers who have had opportunity to benefit from professional mentorship; Second, to determine the influence of mentorship on university lecturers' professional growth in areas of publications, conference attendance, community service, and research orientation.

### **Theoretical Framework**

This research is based on Bandura's (1977) theory which postulates that in observational learning, behaviour can be acquired, reinforced and maintained through modeling. In mentoring, as a social learning model, mentors and mentees must be synergistically aware of their mutual behaviour expectations (Razik & Swanson, 2010). In a social learning context, the use of both formal and informal organizational structures is very important. The formal organizational structure helps to shape the objectives for meeting required standards of performance for the organization. The informal structure focuses attention on observation of actions, norms, practices, values, and the general organizational and personal climate needed to support and enhance performance.

Various approaches can be used to establish mentoring programs. For example, Green (2010) classified mentoring approaches to include one-to-one mentoring, peer mentoring, team mentoring, group mentoring and e-mentoring. In one-to-one mentoring process, one mentor works with one mentee. In peer mentoring, a mentee works with one or more mentors who are peers in the profession. Team mentoring involves a team of two or more mentors working with one or more mentees. In group mentoring, one mentor works with a group of mentees. E-mentoring is the product of the virtual learning age; where mentoring is done using appropriate assistive technology and electronic social media.

### **Research Questions and Hypothesis**

In the study, one research question was answered and one hypothesis tested. The research question answered: What proportion of University lecturers had benefited from professional mentorship?

Hypothesis Tested:

Professional mentorship does not significantly influence lecturers' professional growth in the area of publications, conference attendance, community service, and research orientation.

### **Review of Literature**

The academic culture of university consists of teaching, research and community service in the context of the university's mission and purpose. Faculty workloads also include project supervision, teaching, field trip, teaching practice supervisions and community service. These additional responsibilities may range from minimal to several hours of involvement in an effort to complete the task assigned. Currently, in many developed countries, higher educational institutions have witnessed a climate of decreased funding, downsizing of faculty, increased workloads, and reduced availability of funding for academic development and research (Adam, 2002). These conditions impact all universities as scholars endeavor to remain solvent in the academy. The concepts of mentoring has changed dramatically in the past decade as downsizing, reorganization, and uncertainty become a part of the daily functioning of higher educational institution in the developed countries.

Nigeria as the most populous country in Africa with a population of over 170 million people (Nigeria National Population Commission, 2013), is ranked 31st in World GDP with a Gross Domestic Product (GDP) of \$413.4 Billion and per capital income of \$1,500 per month (Nigeria National Planning Commission, 2012). This explains why it is considered a developing country. Hence, there is limited funding for professional development for faculty and staff in universities. As in any university in the developed world, faculty performance and promotion in Nigerian universities are based on meeting acceptable performance in the area of teaching, research-scholarship and community service. New and junior faculty members have limited opportunities for research and professional development. Opportunities for funding are limited outside the occasional funding from the Federal Government of Nigeria and international organizations. These impose limitations on prospects for promotions for new and junior faculty member.

Bryant-Shanklin and Brumage (2011) defined mentoring as one-to-one relationship between a senior person and junior person, such as between a faculty member and a pre-service teacher candidate or practicing teacher. Sand, Parson and Duane (1991) define mentoring as formal relationship established to achieve career support, role modeling and encouragement. Bozeman and Feency (2007) define mentoring as a process for the informal transmission of knowledge, social and psychosocial support perceived by the recipient as relevant to work, career or professional development. It describes the process, by which a more experienced, and often older person, act as a guide, role model, and sponsor to a less experienced mentee. During the mentoring process, the mentor provides the mentee with appropriate and relevant knowledge; advice; challenge; counsel; and support about career opportunities, organizational strategies, policy and politics in the organization (Hughes, Ginneth & Curphy, 2012).

In recent years, the concept of mentoring has changed dramatically, particularly as downsizing, reorganization and uncertainties have invaded the educational system. The definition of mentorship as a one-to-one relationship between a faculty member and pre-service teacher candidates or practicing teachers has expanded to include relationships that extends beyond the immediate parameters of the university (Goodyear, 2009). Currently, mentoring in

some higher educational institutions includes research focus due to the change in faculty role from service-focused to research intensive institutions (Thomas, 2007).

McPartland (1985) describes the role of the mentor to include advising in respect of teaching, providing feedback, on research sponsorship and guiding on the strategies needed to navigate the terrain of the professional environment. Different types of mentors' roles include advisor, teacher, guide, parent, spiritual guru, gatekeeper, friend, or peer (Gadiner, Grogan & Enomoto, 2000).

The study conducted by Agunloye (2013) on the impact of mentoring program on faculty professional performance and growth of junior academic staff in a higher educational institution in a developing country (Nigeria), showed that mentoring programs produced gains in teaching, research – scholarship and service performance for the participants in the mentoring program.

Child-Trends (2008) found that youth participating in mentoring relationship experience a number of positive benefits. In terms of educational achievement, mentored youth had better attendance, a better chance of going on higher in education, a better attitude towards school and high educational growth. In terms of health and safety, mentoring appears to help prevent substance abuse and reduce some negative youth behaviours. On the social and emotional development front, taking part in mentoring promotes positive social attitude and relationship.

Bryant-Shanklin and Brumage (2011), found that mentoring benefited both participants. The mentee receive assistance and guidance and the mentor is able to leave a legacy as well as gain from the mentee's own experiences. Kram (1985) indicated that mentoring fosters a culture of scholarship at less intensive research universities. In a study by Johnston and McCormack (1997), all participants reported positive perception of the mentoring experience. One of the benefits of mentoring programme is mentees' acquisition of desired research skill. Where mentorship is in practice, mentees are able to acquire, the necessary writing skills to obtain grants and disseminate research information. Mullen and Hutinger (2008) found that the dynamics of mentorship also provide opportunities for greater involvement by university faculty and students in relevant research and leadership affiliations. By and large, mentoring provides substance for career growth and benefits both for the mentor and mentee (Pompper & Adams, 2006). Thus, a mentor's behavior can positively or negatively affect the mentee's career and professional growth. (Thomas, 2001; Girves, Zepada & Gwathmey, 2005; Ragin & Kram, 2007).

## **Methodology**

This was a survey research in which data were collected from lecturers in universities in south-south zone of Nigeria. The subjects totaled 1132 (673 males and 459 females). They were selected using the stratified random sampling technique. The subjects who included professors, readers, senior lecturers, lecturer I, lecturer II, assistant lecturers and graduate assistants were selected from 6 universities in the zone. They ranged in age from 25 years to 64 years. They were all Nigerians from various states of the country.

The data collected involved the use of a questionnaire titled, University Teachers Opinion Questionnaire (UTOQ). The questionnaire elicited from the respondents, their demographic information, whether or not they have had professional mentors, the extent that they have related with their mentors in areas of lecture attendance, carrying research projects, publication,

conference attendance and so on. The questionnaire also elicited information on number of publications, conference attendance and the extent of involvement in community service, as well as research orientation. The data generated were analysed using simple percentages to answer the one research question, and the t-test statistics used in testing the hypothesis. The hypothesis was tested at 0.05 level of significance.

## Result

The results are presented in two tables. Table I shows the extent of mentoring while Table 2 shows the extent mentoring influences the professional growth of lecturers.

The results of data analysis showed that 63.8% of the 1132 respondents reported that they have mentors, while the rest (36.2%) reported not having mentors. In enquiring into the frequency which the respondents relate with their mentors, in the past five years in various task situations the responses were very revealing. As is shown in Table 1, in the past five years 22.71% of these who had mentors have never gone to observe their mentors teach. 36.29% have done so between one and three times, while 41% have watched their mentors lecture for more than four times.

Table I identified the work that mentee had done with their professional mentors as presented in order of their frequencies of occurrence and simple percentages.

**Table I**  
**Frequency and simple percentages showing level of Interaction between mentee and their professional mentor. N = 722**

S/No	Activities in the past five with mentor	Never	1-3 times	4 times & Above
1	Observe mentor teaching	164(22.71%)	262(36.29%)	296(41%)
2	Work with him/her to prepare for lectures	210(29.09%)	226(31.30%)	286(39.61%)
3	Co-teach a course with him/her	162(22.44%)	322(44.60%)	238(32.96%)
4	Work with him/her on a research project	102(14.13%)	364(50.42%)	256(35.46%)
5	Work with him/her on a book	274(37.95%)	306(42.38%)	142(19.67%)
6	Co-author published article with him/her	152(21.05%)	386(53.46%)	184(25.48%)
7	Discuss your academic problem with him/her	67(9.28%)	237(32.83%)	418(57.89%)
8	Discuss your personal problem with him/her	162(22.44%)	256(35.46%)	304(42.11%)
9	Attended conference with him/her	231(31.99%)	291(40.30%)	200(27.70%)
10	Work with him/her on externally sponsored research project	372(51.52%)	230(31.86%)	120(16.62%)

The Bar charts in Figure 1 (below) further illustrates in pictorial form (for greater appreciation) the proportions of the lecturers who never interacted with their mentors in different situations, those who have done so between one and three times and those who have done so more than four times in the past five years.

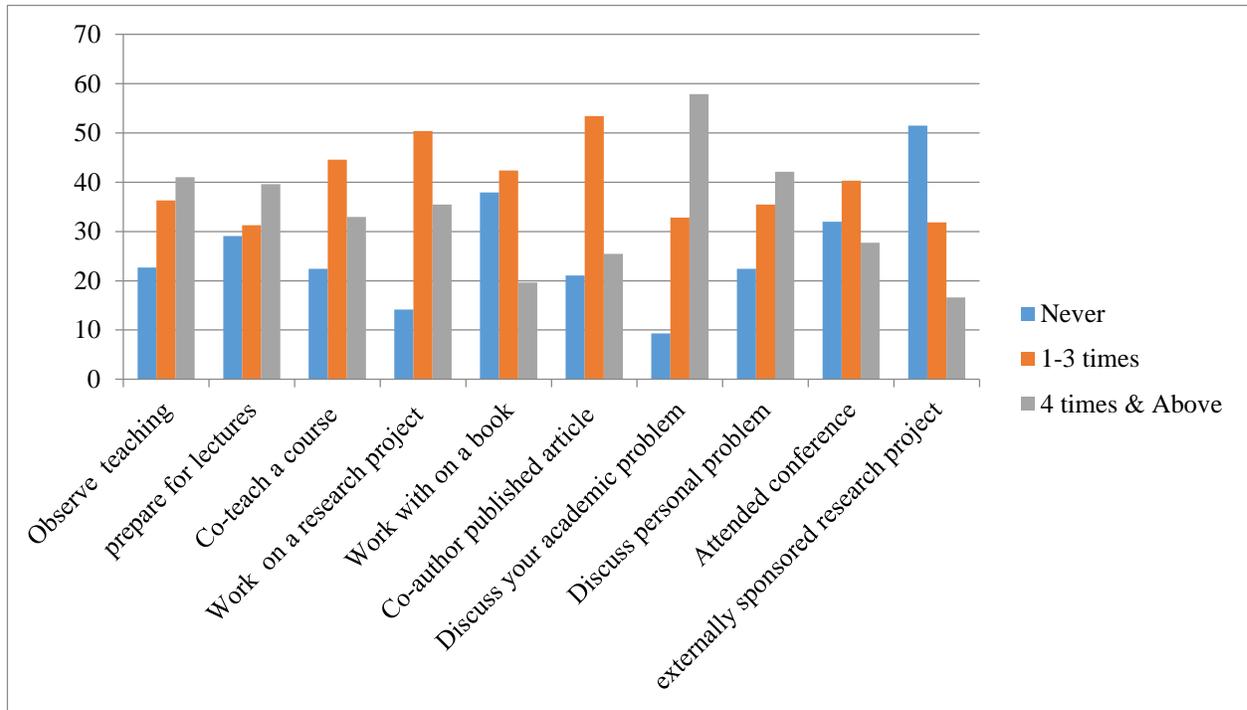


Figure 1: Bar chart of interaction between mentees and their professional mentors

The next section deals with the influence of mentorship on professional growth in the area of number of publications, conference attendance, and community service and research orientation. The Independent t-test statistics was used in testing the hypothesis. This is presented in Table II.

**Table II**  
**Independent t-test analysis of the influence of mentorship on professional growth**

Professional growth Through:	Have you mentor	n	X	s.d	t
Publications:	Have mentor	722	8.07	5.42	-1.382
	Have no mentor	410	8.56	6.24	
Number of Conferences attended:	Have mentor	722	5.61	4.21	9.555*
	Have no mentor	410	3.24	3.62	
Community Service:	Have mentor	722	31.86	12.78	8.102*
	Have no mentor	410	25.35	13.40	
Research Orientation:	Have mentor	722	42.20	7.29	12.963*
	Have no mentor	410	35.48	10.03	

\*Significant at 0.05 level; df = 1130; critical t. = 1.960

As presented in Table II, the result of the independent t-test analysis revealed that the mean scores of respondents who had mentors are significantly greater than the ones of those without mentors in conference attendance ( $t = 9.55, P < .05$ ); community service ( $t = 8.10, P < .05$ ) and research orientation ( $t = 12.96, P < .05$ ). The results also show that the mean scores of those who had mentors and those without do not differ significantly in publications ( $t = -1.38, P > .05$ ). By implication, the results show that mentorship significantly positively influences all aspects of lecturers' growth except in respect of publications. Although mentorship does not significantly influence publications it needs to be noted that the average score in publication tilts higher in the study in favour of those without mentors.

## **Discussion**

The study revealed that lecturers who had professional mentoring were higher in number than those who were not opportuned to have professional mentoring. Looking at the overall interaction between the mentee and their professional mentors in the area of observing their mentors while teaching and preparation of lectures, it was quite revealing because the level of interaction was high. This could be because this area is a very important domain in every university in Nigeria. In addition, during the early years in the academia, teaching skills are stressed in the evaluation process since new and junior faculty members may not be confirmed and regularized within three years of employment if they do not perform well. The interactions with their professional mentors were generally high and consistent across all the areas investigated. Though a large proportion of the lecturers said they had professional mentors, it is surprising that some of them never had adequate interaction with them. This calls for serious concern. The findings further revealed that mentoring significantly influences lecturer's professional growth in the areas of conference attendance, community service and research orientation. These findings are in line with findings of Agunloye (2013); that mentoring programmes promotes teaching, research-scholarship and community service. Bryant-Shanklin and Brumage (2011) found that mentoring benefited both participants. The mentee received assistance and guidance and the mentor is able to leave a legacy as well as gain from mentee's own experience. Child-Trend (2008) found that youths who participate in mentoring relationship experience a number of positive benefits in terms of educational achievement and higher educational growth. This was also supported by Hughes, Ginneth and Curphy (2012) who indicated that professional mentoring provides the mentee with appropriate relevant knowledge, support career opportunities, organizational strategies and overall professional growth.

However, surprisingly, lecturers who were not mentored tended to have more publications than those who were mentored. It contradicts the findings of Agunloye (2013) that the priority of mentees was highly skewed towards presentations and publications. The contrast in this area could be because of the issue of "publish or perish" slogan all over the universities in Nigeria. So many lecturers publish with or without mentors because publishing enhances their promotions. So, what matters to them is to publish, but the question now is whether their publications were as much of high quality as the publications of those with mentors. This is a further area of research.

## **Limitations**

Some of the limitations of this study are worthy of note. The total population of the study was all lecturers in south-south universities. The total number of subjects used were 1500

lecturers, out of which 1132 (76.47%) questionnaires were correctly filled. This gave attrition rate of 24.53%. One is not sure if the result would have been different had all subjects selected returned correctly completed copies of the questionnaire.

## **Conclusion**

The findings have provided evidence for potency of mentorship in facilitating university lecturers' professional growth. From there, the implications for sustainability of educational development of the south-south zone of Nigeria.

However, a high proportion of the respondents never had the opportunity of having mentors, and among those who had mentors, a significant number never had worked with their mentors on externally sponsored research project; book writing and conference attendance. There are other areas that necessarily mentees should work with their mentors for growth that noticeable proportion of the subjects never had the opportunity of doing. One could deduce from the results that since mentorship is not institutionalized, thus not officially enforced, its practice is streamlined; therefore the bond between each mentor and mentee is loose. In that case, the benefits accrued would depend on the strength and direction of their mutual cooperation.

The results show that the areas where mentorship appears most robust adjudged by frequency of respondents having four (4) or more interactions with their mentors are in the discussions of academic problems, discussion of personal problems, observing mentors teach, working with mentors on lecture preparation and working with mentors on research projects.

It is a matter of serious concern, that a substantial percentage of lecturers neither have mentor-mentee relationship nor have a robust opportunity to frequently interact with their mentors for shared experiences in critical professional activities. Where mentorship is not stressed, it is not possible to ensure transfer of experience and skills from older to younger generations in the academia. And if such transfer is not assured, then continuity in some aspects of the university culture and more importantly, sustainability of higher educational development may be endangered.

The findings also show that mentorship aids lecturer's growth in area of conference attendance, community service and research orientation. These areas along with publications are emphasized in the promotion of lecturers. One can see from this that mentorship has the potential of speeding up individual lecturer's rise along the slippery academic ladder. And of course, having promotion as at when due, gives one a sense of job satisfaction, air of self-worth and achievement; while the reverse brings about ego depletion, low morale and frustration which merely serves to undermine the wellness of the system, thus a treat to sustainable development.

Although mentorship does not significantly influence publications, one observe that number of publication tilted highly in favor of respondents without mentors. This appears illogical. However, quality of published items and the reputation of the journals used were not considered in the study. Suffice it to say that, a fair conclusion of the role of mentorship in promoting growth in publication would be ascertain when both the quality and quantity of what are published are put into consideration in further study.

Mentorship as practised in universities in south-south Nigeria is not all-inclusive. That is perhaps the case, because it is not institutionalized. The findings that its facilitates lecturers' professional growth is varying areas serves to define its importance, thus urges it being viewed as a "method of choice" for assurance of sustainable educational development in the south-south

zone of Nigeria. During one's early years in the academia, he or she needs the benefits of institutionalized modeling. He or she needs guidance and direction for enriched and focused scholarly endeavors. The mastery of knowledge and skill in pedagogy by young academics should not be taken for granted in every profession - teaching inclusive; the practice of mentorship should be embraced as a potent factor in ensuring sustainable educational development.

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## Ensuring Justice in Assessment of Learning among Nomadic School Children in Nigeria

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**Abstract:** *Nigeria is one of the Commonwealth countries with a high population of nomads, 3.1million of whom are school-age children. Nomads exhibit cultural inertia and child-labour attachment to their occupation and this lifestyle affects their children's formal education. However, the National Commission for Nomadic Education (NCNE) is saddled with the responsibility of mainstreaming of these children into the formal education system of Nigeria. For the sake of accountability, evidence is needed to show that curriculum objectives have been achieved. This evidence is often provided by assessment of learning in nomadic schools. The authors are of the opinion that, for justice sake, a one-to-one alignment of assessment modalities for both conventional and nomadic schools may likely paint a foggy picture of achievement of nomadic children. As our contribution to addressing this likely injustice, this paper presents context-based assessment procedures that take cognizance of the peculiar tasks of nomadic children in Nigeria.*

**Keywords:** Nomadic, Nigeria, Assessment, Justice

### INTRODUCTION

#### Background to the Study

The Universal Basic Education (UBE) Act was promulgated by the national government of Nigeria in May, 2004. One key objective of UBE is to ensure unfettered access to nine (9) years of formal basic education. However, in order to meet this UBE objective of Nigeria which arose from Education for All (EFA) goals 2 and 3, as well as the Millennium Development Goals (MDGs), all groups of children must be included in reforms in the education sector. EFA Goal 2 on universal primary education states, “Ensuring that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to and complete, free and compulsory primary education of good quality”(FME, 2011,P.8). Some of the children who form part of the UBE population are nomadic. Turnbull (2010) defines a nomad as, a member of a community that moves with its animals from place to place. Nomads can be found in different parts of the world e.g. Kazakhstan, Kyrgyzstan, Mongolia, Turkey, etc. According to Kelleher (2007) the Commonwealth is home to substantial nomadic and semi-nomadic communities. Such commonwealth countries include India, Pakistan and Nigeria. Others are Kenya, Ghana, United Republic of Tanzania, Botswana, Namibia, Uganda, Cameroon, and South Africa. Nigeria has 9.4 million nomads, with 3.1 million school-age children (Abbo, 2011).

There are three categories Nomads in Nigeria - nomadic pastoralists, migrant fisher-folks and migrant farmers. Nomads exhibit cultural inertia and child-labour attachment to their

occupation. Their lifestyle thus affects their children's formal education. Even with the UBE in operation, all is not well with achieving "unfettered access" because Nigeria is home to the largest number of out of school children in the world; Nigeria accounts for almost a fifth of the worlds out-of-school children (Afisunlu, 2013). According to UNESCO (2012) early school leaving, results in lost opportunities, and Nigerian children suffer from this sad situation. Some of these children belong to the nomadic population due to their unique cultural characteristics and lifestyles which put them "always on the go".

The nomadic children have been considered as learners with special needs in education. Special education is a formal educational training given to people with special needs (Ntukidem, Asim & Eni, 2005). According to them, children and adults with special needs can be classified into three categories as follows:

- i. The disabled: people with impairments (physical, sensory) and because of these impairments/disability cannot cope with regular school/class organization and methods without formal special educational training.
- ii. The disadvantaged: the children of nomadic pastoralist, migrant fisherfolks, migrant farmers, hunters, etc. who, due to their lifestyles and means of livelihood, are unable to have access to the conventional educational provision and therefore require special education to cater for their particular/peculiar needs and circumstances.
- iii. The gifted and talented: people with high intelligence quotient (IQ) and naturally endowed with special traits (in arts, creativity, music, leadership, intellectual precocity, etc.) and therefore insufficiently challenged by the regular school/college/university programmes. (p. 182.)

The issue of nomads and their formal education is not peculiar to Nigeria. The establishment of International Institute for the Study of Nomadic Civilizations, as an initiative of UNESCO underscores the global impacts of nomadic culture and civilization arising from the itinerant lifestyle. The idea for such a centre which was muted in 1992 by an international team involved in the silk route under the auspices of UNESCO, was due to the fact that it was felt that the right time had arrived for the international community to make a significant effort to deal with these matters in accordance with the possibilities and requirements of contemporary academic and scientific research (<https://en.unesco.org/silkroad/silk-road-institutions/international-institute-study-nomadic-civilizations>).

In Nigeria, the National Commission for Nomadic Education (NCNE) was set up by Act No. 41 of 1989, with the responsibility of mainstreaming nomadic children into the formal education system of the country. To actualize this mandate, NCNE was to:

- establish, manage and maintain primary schools for nomadic children;
- collate, analyze and publish information relating to nomadic education in Nigeria and obtain from the States and from other sources, such information as is relevant to the discharge of its functions under this Act;
- determine standards of skills to be attained in nomadic schools established by the Commission, and review such standards from time to time;

According to NCNE (2012: p. ii) "the advocacy for relevant education for migrant fisher-folk for instance, is based on the premise that a non-literate society whose experience of formal education is improved is a boost for overall national development. It is a relevant educational system that would foster continuity between the home and school. Ultimately, education should

enable nomads improve their socio-economic and spiritual well-being as well as maintain the good aspects of their rich culture which they have retained over the centuries. It should enable them know their rights and privileges as well as their responsibilities as Nigerians. The acquisition of these knowledge, skills and competencies are desirable for attitudinal change. This is what the newly adapted curricular in five subject areas – English Studies, Mathematics, Basic Science and Technology, Religious and Values Education as well as Pre-Vocational Studies is advocating”. This research is therefore a contribution in creating a balance between nomadic culture and formal education, with emphasis on the evaluation component of the Basic Science and Technology Curriculum of nomadic schools.

### **Purpose of the research**

The purpose of this study is two-fold; first it seeks to highlight the assessment modes of the Nigerian Nomadic Schools’ Science and Technology Curriculum. Secondly it proposes (with justifications) context-based assessment formats and procedures, best suited to the day-to-day tasks of nomads. These concerns are based on the need to ensure justice in the assessment for learning (formative) and assessment of learning (summative) of vulnerable groups like the nomads of Nigeria.

### **Theoretical framework**

This research derives its theoretical basis from the following theories:

1. True Score Theory.
2. McClelland’s Achievement Motivation Theory

#### **True Score Theory**

This is a measurement theory. The main tenet of this theory is that a score (O) assigned to a student during testing consists of two additive components. This theory can be represented as a linear equation:  $O = T \pm \epsilon$ . Here T is true ability (or the true level) of the respondent on a particular measure; while  $\epsilon$  represents random error. In more human terms this means that the variability of your measure is the sum of the variability due to true score and the variability due to random error (Trochim, 2006). Random errors in measurement can arise from various sources like, the nature of stimuli to which the learners respond, the testing situation, the test developer, etc. When teachers’ competency in test construction is questionable, validity of the assessment outcome is dubious (Asim, Ijente, & Bassey (2010); Asim & Promise (2012); Asim, Ekuri & Eni, (2013)). However, errors can be minimized through:

- the use of culture-fair tests;
- improving teachers’ competency in culture-fair tests construction.

Enhancing teachers’ competency in construction and use of culture-fair tests assessment is what this study aims at achieving.

#### **McClelland’s Achievement Motivation Theory**

David McClelland and his Associates in 1953 came up with the idea of a motivation theory that drives achievement. To them, achievement motivation is a learned motive to compete and to strive for success in situations in which one’s performance can be evaluated against some standard of excellence. Trying to explain this theory, Shaffer (2005), said that in other words, “high-need achievers” have learned to take pride in their ability to meet or exceed high standard. This sense of self-fulfillment motivates them to work hard, be successful and try to outperform others when faced with new challenges. The implication is that if nomads are assessed in a way

that takes their day-to-day activity into consideration, this will make them interested in what the teachers teach. This intrinsic motivation may result in sustained learning likely to lead to the achievement of the objectives of nomadic education.

### **Method**

Basically, document analysis method is adopted in this study, because the investigators were interested in studying the content of the curriculum. The structural unit of concern was the Nigerian Basic Science and Technology Curriculum of Pastoralists and Migrant Fisherfolks, with particular interest in the evaluation component of this document. The researchers considered document analysis most appropriate, because the outcome of the study would be an addition of context-specific assessment modalities, as well as a justification for their suggestion. In performing the document analysis, the “Objectives of Basic Science and Technology Curriculum” were used as criteria for judging the nature of appropriate assessment modalities to be adopted.

The Basic Science and Technology Curriculum is expected to enable the learners:

- (i) develop interest in science and technology;
- (ii) acquire basic scientific and technological knowledge, skills and attitude;
- (iii) apply scientific and technological knowledge and skills to meet societal needs;
- (iv) take advantage of the numerous career opportunities in science and technology to create wealth for themselves, their immediate communities and the nation at large; and
- (v) prepare for further studies in science and technology.

### **Sampling**

A multi-stage approach was adopted in sampling. First, a purposive sample of two (2) out of the four (4) themes that make up the Basic Science and Technology Curriculum for Nomadic Primary Schools (Revised: 2012) was done. The 4 themes are: *Basic Science*, *Basic Technology*, *Physical and Health Education* and *Computer/Information Technology*. The choice of these two themes was premised on the fact that science and technology are the drivers of the economy in this millennium. In order to select topics/content areas, stratified random sampling was adopted. The first step involved stratification of the Curriculum based on 2 thematic areas (Basic Science and Basic Technology) with 2 units per theme. Further stratification was on the basis of classes (Primary 4, Primary 5 and Primary 6). These stratifications resulted in 12 strata (i.e. 2x2x3.) From each stratum, the number of topics selected was based on the following considerations: (i) strata with 4 or 5 topics, only 2 topics were selected, (ii) strata with 2 or 3 topics, only 1 topic was selected, while (iii) strata with only 1 topic, were not selected. The selection resulted in a total of 17 out of 40 topics. The distribution of topics selected out of the total contained in the curriculum is presented in Table 1.

**Table 1: Selected themes, sub-themes and number of topics per class in the Basic Science and Technology Curriculum.**

S/N	Theme	Sub Theme	Primary 4	Primary 5	Primary 6
1.	Basic Science	Learning about our Environment	1	1	2
		Living and Non-Living Things	2	2	2
2.	Basic Technology	Understanding Basic Technology	1	1	2
		You & Energy	NIL	2	1
TOTAL			4/11	6/14	7/15

### Data Collection

Data collection involved the 17 sampled topics in the curriculum under scrutiny. For each topic, the performance objectives and evaluation guides were adopted. For the purpose of this study, suggested assessments which are context-specific and culture-based are given. Thus, examples of tasks were drawn from both the nomadic pastoralists as well as migrant fisherfolks environments. For instance, if the pastoralists are required to inspect the structure of different types of teeth of terrestrial animals, their fisherfolk counterparts are required to do same with aquatic animals. Justifications for the suggested assessment are also given, as shown in table 2.

**Table 2: Nomadic school teachers' guide to culture-fair assessment**

Topic	Performance objectives	Evaluation guide in conventional curriculum	Suggested assessment for nomadic children	Justification for suggestion
1. Changes in Nature (reversible & irreversible)	<b>Pupils should be able to:</b> State the differences between temporary and permanent changes	<b>Pupils to:</b> State two differences between temporary and permanent change.	<b>Pupils to:</b> 1. Describe change in the colour of grass during rainy and dry seasons. 2. Light a candle and observe what happens while it is burning and when it has completely burnt.	1. They are used to both rainy and dry seasons. 2. They sometimes use candle for lighting
2. Human body (our mouth)	<b>Pupils should be able to:</b> Locate the relative positions of teeth	<b>Pupils to:</b> State the uses of the different types of teeth in feeding	<b>Pupils to:</b> 1. Observe cows when they graze in the field, biting, cutting & chewing. 2. Observe each other's teeth. 3. Compare human teeth with cow/fish teeth	They handle terrestrial and aquatic animals in their occupational environment.
3. Water	<b>Pupils should be able to:</b> differentiate water from	<b>Pupils to:</b>	<b>Pupils to:</b>	1. These are common liquids

	other liquids. Explain: evaporation, condensation and freezing.	<ol style="list-style-type: none"> <li>List two features that identify a liquid as water</li> <li>State at least one change that would be observed when water is heated</li> <li>State at least one change that would be observed when steam condenses.</li> </ol>	<ol style="list-style-type: none"> <li>Explain two ways by which they can differentiate between kerosene and water.</li> <li>Observe dew on leave, early in the morning-</li> <li>Explain what happens when water is boiling and when it is cooled.</li> </ol>	<ol style="list-style-type: none"> <li>that they deal with daily.</li> <li>Fishing or cattle rearing start early before sun rise.</li> </ol>
4. Shape	<b>Pupils should be able to:</b> Fold and bend metal or cardboard paper to form an object.	<b>Pupils to:</b> Use cardboard sheet to construct a cylinder, cone and box.	<b>Pupils to:</b> Construct temporary shelters of different shapes using waterproof sheets and grass stalks or bamboos	Nomadic children assist their parents in making temporary shelters of different shapes in grazing grounds and fishing ports.
5. Environment change (erosion & pollution)	<b>Pupils should be able to:</b> Identify, discuss and implement simple strategies for controlling erosion Define pollution and list some water and Air pollutants	<b>Pupils to:</b> <ol style="list-style-type: none"> <li>State 3 ways of controlling erosion</li> <li>Describe pollution and list 5 air and water pollutants respectively</li> <li>identify 3 sources of air and water pollution respectively</li> </ol>	<b>Pupils to:</b> <ol style="list-style-type: none"> <li>Describe the odour of polluted air due to cow dung / decayed seafood.</li> <li>Explain what they need to do to ensure that drinking water sources are not contaminated due to grazing/dumping of waste in the river.</li> <li>One thing they can do to prevent the washing away of top soil due to grazing/running surface water.</li> </ol>	They dispose animal and human wastes regularly and need to be aware of the consequences and need for control.
6. Reproduction in Plants	<b>Pupils should be able to:</b> Describe stages of development from flower to fruit.	<b>Pupils to:</b> List the changes that occur at different stages of development from flower to fruit	<b>Pupils to:</b> Plant certain seeds and note how they grow through different stages.	In addition to fishing and grazing, they do some form of subsistence farming.
7. Rocks	<b>Pupils should be able to:</b> List some important uses of rocks.	<b>Pupils to:</b> List three uses of rocks	<b>Pupils to:</b> Should collect different types of rocks and state the use of each.	Cracking nuts e.g. cashew or palm kernels are common among these groups.
8. Materials and Maintenance	<b>Pupils should be able to:</b> state the need for maintenance	<b>Pupils to:</b> State 3 reasons why maintenance is needed	<b>Pupils to:</b> <ol style="list-style-type: none"> <li>Explain why they should mend their shoes and umbrella.</li> <li>Describe how they mend these items.</li> </ol>	These are 2 very important items they use during rainy and dry seasons. Also they may be far from professional menders of such

				items and may have evolved their way of maintenance.
9. Energy conversion	<b>Pupils should be able to:</b> State the importance of energy conversions.	<b>Pupils to:</b> State at least three importance of energy conversion.	<b>Pupils to:</b> Explain 3 purposes served when they kindle fire at night	On a daily basis they use fire from kerosene stove or wood for cooking and keeping themselves warm.
10. Heat and Temperature	<b>Pupils should be able to:</b> Use the thermometer to measure the temperature of objects accurately.	<b>Pupils to:</b> Use thermometers to measure temperature accurately.	<b>Pupils to:</b> Observe how health personnel use the thermometer in measuring people's temperature.	They are occasionally visited by health workers for routine immunization and treatment.
11. Changes in our climate	<b>Pupils should be able to:</b> observe changes in our climate over a period of time	<b>Pupils to:</b> Observe changes in our climate over a period of time	<b>Pupils to:</b> Describe how they know that the harmattan season has started.	Fog covers the grasslands while heavy fog covers the waterways in the riverine areas.
12. Force	<b>Pupils should be able to:</b> 1. Demonstrate the effect of force on objects 2. State the advantage and disadvantage of friction	<b>Pupils to:</b> 1. Describe the effect of force on materials 2. Mention two advantages and disadvantages each of friction.	<b>Pupils to:</b> 1. Rub their palms together vigorously, and use it to touch their cheeks. 2. Observe the sole of a new shoe and an old one and explain what makes one look smoother than the other.	1. Rubbing palms vigorously together is a normal feature of keeping warm. 2. Nomads protect their feet with shoes, which may wear off due to long trekking.
13. The human body system: Blood circulation	<b>Pupils should be able to:</b> Differentiate among arteries, veins and capillaries	<b>Pupils to:</b> State two distinguishing features of the arteries, veins and capillaries	<b>Pupils to:</b> Observe and describe different blood vessels in a slaughtered cow or goat.	They regularly witness slaughtering of animals.
14. Air	<b>Pupils should be able to:</b> Demonstrate that air presses on every object	<b>Pupils to:</b> Use simple activities to demonstrate air pressure	<b>Pupils to:</b> 1. Blow air into cellophane bags, tie the mouth and press it down with their fist. 2. They should describe the effect of air in the bag.	Cellophane bags are very cheap and found everywhere. Traders use it instead of paper for packaging.
15. Primary and secondary colours	<b>Pupils should be able to:</b> Mix primary and secondary colours of identify the shades of colours produced.	<b>Pupils to:</b> Produce known colours from primary colours.	<b>Pupils to:</b> 1. Identify different colours of plants, tree barks, and flowers.	1. They spend a great deal of their occupational time in the natural habitat.

			2. Mix pigments from flowers, leaves, and tree barks and describe the colours obtained.	2. They use leaves and tree barks for medicinal purposes.
16. Maintenance and safety.	<b>Pupils should be able to:</b> 1. Explain the meaning of maintenance. 2. State the importance of maintenance.	<b>Pupils to:</b> 1 Explain the meaning of maintenance. 2. State the importance of maintenance.	<b>Pupils to:</b> Let pupils explain how they prolong the life span of their occupational implements.	They are often far from city centres and may have evolved their maintenance strategy over time.
17. Simple Machines: Levers	<b>Pupils should be able to:</b> Collect and identify simple machines	<b>Pupils to:</b> Give meaning of : -machine -lever	<b>Pupils to:</b> 1. Try to balance 2 unequal loads on both ends of their herding stick. 2. Describe how people are made to sit in a canoe to ensure balance and prevent capsizing.	1. The pastoralists sometimes put their herding sticks across their shoulders to support their arms. 2. Fisherfolks perform these accident-preventing strategies of balancing their canoes daily.

### Results and conclusions

Results of the analysis are presented in table 2. The first three columns are adopted from the Nomadic Education Curriculum. These were used as guides for generating columns 4 (the proposed assessment alternatives) and 5 (the justification for each alternative assessment). The nature of assessment suggested, depends on the daily or periodic activities of the different categories of nomads. The 17 selected topics from the combined primary classes 4, 5, and 6 curriculum of basic science and technology formed the sample. The outcome of this study is a package of context-based assessment modalities which can be used by internal and external assessors of basic science and technology among nomads. The outcome of this study shows that, irrespective of the peculiar nature of the nomadic life-style, tailor-made assessment arising from the existing curriculum can be used for them. This approach will make assessment less threatening to them, and they may be motivated to learn and achieve. It would not be out of place to add that, justice in assessment of any group of learners is possible.

### Educational importance of this study

One of the mandates of the National Commission for Nomadic Education is to determine standards of skills to be attained in nomadic schools established by the Commission, and review such standards from time to time. This is an issue of accountability requiring tangible evidence that curriculum objectives have been achieved, as well as empirical basis for the required periodic review of standards. For these major reasons, learning in nomadic schools must be assessed. The cultural inertia and child-labour aspects of their occupation may not allow them the same contact hours in the classroom as it happens in the regular school system. Therefore, it would be unjust to put them through the same assessment formats that apply in conventional schools, even if they operate the same curriculum.

There is also the realization that the society is pluralistic and the response of science teachers should be towards this pluralism (Okebukola, n. d.). Thus it would be wrong to assume a “one size fits all” paradigm in assessing science. The use of pre-structured concept maps have been found very useful in science teaching and assessment of low ability pupils in Nigeria (Asim, 1998), and even for teaching difficult aspects of lessons on HIV/AIDS (Asim, 2005).

Multiple choice test formats have assumed a key role in both school-based and external examinations globally, and in Nigeria, mainly as a result of large class sizes. However, teachers’ competency in assessment of learning in science has been under scrutiny (Asim, Kalu, Idaka, & Bassey; 2007). Evidence from research suggests that teachers’ competency in constructing one variety of multiple-choice item does not guarantee same ability in constructing other varieties of multiple-choice items (Asim, Ekuri & Eni, 2013). Focusing on alternative performance assessment for the nomads is not out of place. There have been numerous contributions on alternative assessment for students with disabilities, notable among such is the Performance Assessment System for Students with Disabilities (PASS-D) developed by the State of Florida (Taylor, 2006). The outcome of this study has shed light on workable assessment strategies that could be incorporated into the existing curriculum for a fair and equitable assessment of nomads and other disadvantaged groups.

### Connection to the themes of the assembly

According to (<http://en.wikiquote.org/wiki/Justice>, justice is a concept involving the fair, moral, and impartial treatment of all persons. In its most general sense, it means according individuals what they actually deserve or merit, or are in some sense entitled to. The peculiar circumstance of the nomadic lifestyle and their cultural inertia (NCNE, 2013), puts them “always on the go”. However, they are part of the “All” in EFA mandate, and evidence is needed to show they are benefiting from the education they are provided. For justice sake we have proposed, and justified some context-based assessment modalities, which are mainly culture-related and suitable, best suited for the nomadic school-aged population. In approaching the issue of justice in assessment, certain concerns which are pertinent to assessment were considered, as given in box 1:

**Box 1:** A guide to choosing the most appropriate contextual guide to assessment of nomads

S/N	Area of concern	Justification	Contextual guide
i	Why do we assess a learner?	A myriad of reasons for assessment exist	Assessment for learning (formative, diagnostic) or assessment of learning (summative, placement, certification, etc.)
ii	Who should assess the learner?	Many and different persons can justifiably assess the learner	School-based teacher-made or external examination bodies
iii	What is/are the most appropriate assessment procedure(s)	Varieties of context-based modalities of measurements exists	Self-report, behavioral, or physiological instruments.

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## **Enhancing the Written Performance of Diploma Students with Congenital and Profound Hearing Impairment in Nigeria**

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***Abstract** The written performance of diploma students at the University of Jos, born with profound hearing impairment is grossly inadequate for their level of education. This affects their general performance in the courses they undertake because the sentences they write can hardly be understood by the lecturers who mark their scripts. This paper gives a report of an experimental study involving five students with congenital and profound hearing impairment with the aim of improving the quality of their written performance for inclusion. The study is premised on Pennebaker's Expressive Writing Therapy and it adopted the ABA single subject experimental design where the students were exposed to twelve weeks of remediation involving reading, retelling, discussion, and comprehension exercises. The data collected were analyzed using simple percentages. The study revealed that the students made remarkable improvement in word arrangement, wrong capitalization, and in the use of unrelated language units, in their sentences.*

**Keywords:** Written Performance, Congenital Deafness

### **Background of the Study**

The ability to read and write is often referred to as literacy. An individual is said to be literate only if he/she is able to read and make meaning out of a given text and he is equally able to express his/her opinion or give information through writing Egenege and Amarachi (2006). This skill is difficult in particular for the congenitally hearing impaired. Hearing impairment which is a type of sensory disorder is an umbrella term referring to the presence of a problem in the hearing organ of an individual. It covers the subsets of deafness and hardness-of-hearing. While deafness refers to a condition whereby the organ of hearing is disabled to an extent that preclude the understanding of speech sound through the ear alone, with or without amplification for ordinary purposes of life, hardness-of-hearing on the other hand, refers to a condition whereby an individual has difficulty in hearing speech sound. A deaf individual therefore is one who does not hear speech sound at all, while a hard-of-hearing has partial hearing (Babudoh, 2008).

This study pertains only to the congenitally deaf diploma students. These individuals who were born with a very severe hearing impairment have poor experiential background which grossly affect their acquisition of language and their ability to do continuous writing. According to Hornby (2001), continuous writing refers to the process of creating meaningful texts by

describing things and situations in simple and correct sentences. Hart (1978) for instance, says that students who lack sufficient background in a topic, will have difficulty writing about it. This is the situation with many congenitally deaf students at the University of Jos, hence, they can hardly write simple coherent sentences expressing their thoughts and feelings about things and situations.

The structure of their sentences are such that their teachers can hardly make meaning out of their write-ups. The result is that most of such students 'carry over' courses or repeat levels again and again. An interaction with some of the students revealed that most of them actually understand a little of the content of their courses, but do not know how best to put down their thoughts. They complain that lecturers do not like them because they are deaf, so the lecturers fail them in their courses. The truth is that no lecturer intentionally fail any student in his/ her course. The deaf students fail rather conspicuously because of their inability to adequately express themselves.

It follows therefore that the major problem of these deaf students is their inability to write simple and coherent sentences. This study investigates the nature of their writing errors, with the aim of improving the quality of their performance in continuous writing.

### **Purpose of the Study**

The purpose of this study is to enhance the written performance of diploma students with congenital and profound hearing impairment in Nigeria. The specific objectives are:

- To find out the nature of the writing errors of the diploma students born with hearing impairment at the University of Jos.
- To undertake a remediation exercise that would improve the quality of the written performance of the students.

### **Research Questions**

- What are the forms of writing errors made by the diploma students with congenital and profound hearing impairment?
- To what extent will the remediation exercises reduce the writing errors of the students thereby improving their ability to write simple and correct sentences?

### **Methodology**

The population of this study was made up of 30 hearing impaired diploma students at the University of Jos. Five of the students were selected from the population using personological variables such as sex, age at onset of the problem, and degree of hearing loss. The study was made up of two girls and three boys with congenital hearing impairment (born with a hearing problem), whose hearing loss was measured to be profound, meaning, they are deaf.

The study adopted the A-B-A single subject experimental design which helped to establish the effect of the remediation exercise on the few students. This design was preferred in this study because the focus of change was on the individual and not on groups as required by quasi-experimental designs. Besides, the sample used was very small. This is in line with the assertion of McMillan (2000) that single subject design is the most effective in studies that deal with exceptional children where the population involved is very small.

Two instruments were used for the study, namely: A demographic questionnaire and Assessment Tests. A 16-item questionnaire was used to get the students' biodata and their personal characteristics such as sex, the nature of their hearing problem (mild, moderate, or severe), and information on the time the hearing problem started (before birth (congenital) or after birth). Three different types of assessment tests were used in this study to get the entry point of the students. The tests were Audiological Assessment Test (AAT) which helped to differentiate the hard-of-hearing (people with mild hearing loss) from the deaf (people with severe to profound hearing loss); Reading Comprehension Test (RCT) which helped to specify the level of comprehension of the students (whether literal, inferential, or critical). The activities involved were the reading of 12 graded comprehension passages; and Continuous Writing Ability Test (CWAT) which helped to test the students' abilities to think logically and write, expressing their feelings and opinions about situations and people. The exercise was meant to reveal the nature of the students' write-ups in terms of sentence length (number of words used), number of sentences, and the correctness of their sentences, measuring their relevance to the topics. This implies that CWAT helped to expose the writing errors of the students. The topics used for this exercise were "my best food" and "my best friend". These topics were chosen because the students were familiar with the concepts. The activities involved were discussions, making of simple sentences, and the writing of compositions.

The remediation exercises which constituted the treatment was made up of literacy activities. The activities involved were reading of story books, re-telling of the stories in sign language and in writing, discussion of events and activities in the stories, and answering of questions based on the stories, in sign language and in writing. Other activities were construction of simple sentences (using the new words learned) in sign language, and the construction of simple sentences (using the new words learned) in writing.

After the treatment the students were subjected to the 12 graded reading comprehension exercises and the continuous writing ability tests which they did before the treatment. The reliability index of the treatment instrument was calculated using the Pearson  $r$  to compare the performance of the student in 3 aspects of continuous writing namely: number of words used, number of sentences used, and the number of sentences with wrong word arrangements. The calculated  $r$  for all the variables showed a positive direction of the relationship between the pre-treatment and the post-treatment tests. Using the guideline provided by Ugodulunwa (2008), the magnitude of the relationship for the number of words (+0.68), and the number of sentences used (0.61) was high. The computed  $r$  for wrong word arrangement was 0.40 which could be regarded as medium. In other words, the treatment exercise was beneficial to the students

### **Procedure for Data Collection**

The study adopted a pre-treatment test, treatment, and post treatment test design. The aim was to see the effect of the treatment exercise. The pre-treatment tests were conducted to establish a baseline in terms of ascertaining the nature of the students' hearing loss, and specifying the nature of the errors they made while writing their compositions.

At the pretest stage, students were subjected to an audiological evaluation during which a Pure-Tone Air conduction and Bone conduction threshold assessments were done to determine the level of their hearing impairment. This assessment helped to separate the deaf from the hard-of-hearing to enable the researcher make her selection.

The 16-item demographic questionnaire was then given to the students to illicit some personal information some of which helped to corroborate the audiological assessment report. To assess their reading comprehension ability, the five students chosen were made to read graded passages in the Umolu Informal Reading Inventory (UIRI) to determine their reading levels. Determining the reading levels of a student entailed assessment of the students' word recognition ability, and their performance on 12 comprehension exercises Umolu (1984). The determination of their reading levels informed the choice of the story books used for the treatment programme. The pre-treatment test lasted for one week, after which the treatment began.

The treatment exercise involved a number of activities such as the reading of 3 story books, re-tellings of the stories read manually (in sign language) and in writing, discussion of activities and events in the story books, answering of questions based on the stories, in sign language and in writing; and writing 10 simple sentences each, using new and interest words of their choice from the books.

The meaning of the new words as well as their signs were taught and practiced before the commencement of the reading of the story books. The books used in this study were "Round Round seed", "Ama's Bowl of food", and "The Lion is hurt". These books were selected based on the style of writing (they all have a trend), quality of print, number and quality of illustrations, clarity, and length of sentences. Using the Fog Readability Index, the books were assessed to be meant for primaries 4 and 5. These simple books were chosen because the pre-treatment assessment of the students' performance on the comprehension passages showed that the students' reading levels were at primaries 3 and 4. And the sentences they made in their compositions were very few and incorrect. The stories contained common nouns, verbs and adjectives frequently used by children and students.

The students were made to read each story after the researcher had given a summary in order to arouse the students' interest and curiosity. The students read the stories again and again silently and aloud using sign language. They discussed parts of the stories that captured their interest by describing events, activities and characters of people. The students were made to re-tell the stories in sign language individually after which they answered the questions asked at the end of each story. This they did in sign language and in writing. Below is the summary of the treatment exercise.

**Table 1 Summary of Treatment Exercise**

OBJECTIVES	CONTENT	ACTIVITIES	EVALUATION TECHNIQUES
By the end of the programme, the students should be able to: - Read the story books	- The story books	- Reading of the story books	- Asking students to read the stories silently and aloud – using sign language
- Explain briefly the meaning of the new words and also give their signs		- Learning the meaning and signs of the new words.	- Asking students to give the sign and meaning of words produced on flashcards.
- Use the new words in sentences		- Using the new words in sentences in sign language, and in writing	- Asking students to use the new words in sentences using sign language and in writing.
- Answer questions on the stories read, using sign language and in writing.		Answering of questions on the stories read manually and in writing	Asking students to answer the questions at the back page of the different books, in sign language
- Discuss parts of the stories in terms of the trend.		Discussing parts of the stories	Encouraging students to discuss parts of the stories that interest them
- Retell the stories in sign language.		- Retelling of the stories in sign language and in writing.	Asking students to retell the stories in sign language logically.
Write at least 15 words each from each of the story books		Writing of individual words they can remember in each story	Giving students 10 minutes (at the end of each oral / manual retelling) to write down as many words as they can remember in each story
- Do the maze Exercises	- The Maze exercise - The Cloze exercise	- Learning how to use the maze and the Cloze exercises	- Encouraging students to do the Cloze as well as the Maze exercises.
- Do the Cloze exercises.			
- Write simple and correct sentences using the new words learned.		- Learning how to do the Maze exercises on each story	
- Retell the stories in writing.		Retelling the stories in sign language	Asking students to retell the stories in writing logically.
		Retelling the stories in writing	

### Results

The effect of the remediation exercise was judged based on the analysis of the research questions as given below.

### Research Question One

What are the forms of writing errors made by the diploma students with congenital and profound hearing impairment?

This research question was answered using the results of the tests the students were subjected to before and after treatment. The table below gives the analysis of the nature of the sentences made by the students.

**Table 2: Writing Errors of the Diploma Students**

S/N	Student	Period	NWU	NSU	OMISSIONS					OTHER ERRORS				
					Ver b	Co n	Pl M	W E	De t	W C	R S	IUL U	WW A	UF A
1	Kudu	Pre	163	13	12	3	10	15	11	15	8	5	10	5
		Post	180	16	8	2	6	8	7	5	2	2	5	0
2	Bello	Pre	152	10	5	5	12	11	12	11	5	6	8	5
		Post	170	13	3	3	7	5	8	5	3	4	6	2
3	Joseph	Pre	170	15	5	5	9	10	7	10	11	5	12	6
		Post	190	17	2	2	4	4	3	4	5	3	7	0
4	Afene	Pre	71	11	5	5	7	6	7	10	10	6	11	0
		Post	100	8	3	3	5	2	4	6	4	2	7	0
5	Umar	Pre	140	8	4	4	7	8	4	9	8	5	8	3
		Post	180	14	2	2	3	6	4	6	4	2	7	2

#### Key

Con = Conjunction

PlM = Plural Marker

WE = Word Ending

Det = Determinant

Pre = Pre-treatment

Post = Post treatment

RS = Rigid Sentence

WWA = Wrong Word Arrangement

WC = Wrong Capitalization

IULU = Inclusion of Unrelated Language Units

NWU = Number of Words Used

NSU = Number of Sentences Used

UFA = Unfamiliar abbreviations

Table 2 shows the types of writing errors made by the students before and after treatment. The findings tabulated were got from the analysis of the performance of the students on the continuous writing ability tests (CWAT) which were conducted before and after the treatment. The table shows that all the students in the study made different forms of omissions of different magnitudes while writing simple composition exercises. Their sentences were characterized by omissions of verbs, conjunctions, plural markers, word endings, and determinants. Other forms of writing errors made by the deaf students (as revealed by this study) in addition to the omissions include: wrong capitalization, addition of unrelated language units, rigid sentences, and wrong word arrangements. By this analysis, research question one has been answered.

### Research Question Two

To what extent will the remediation exercises reduce the writing errors of the diploma students thereby improving their ability to write simple and correct sentences?

**Table 3: Analysis of the Effect of the Treatment Exercise.**

S/N	Student	Period	NWU	NSU	O MISSIONS					O THER E RRORS				
					Verb	Con	PIM	WE	Det	WC	RS	IULU	WWA	UFA
1	Kudu	Pre	163	13	12	3	10	15	11	15	8	5	10	5
		Post	180	16	8	2	6	8	7	5	2	2	5	0
		Diff	17 10.4%	3 23%	4 33.3%	1 33.3%	4 40%	7 46.7%	4 36.4%	10 66.7%	6 75%	3 60%	5 50%	5 100%
2	Bello	Pre	152	10	5	5	12	11	12	11	5	6	8	5
		Post	170	13	3	3	7	5	8	5	3	4	6	2
		Diff	18 11.8%	3 30%	2 40%	2 40%	5 41.7%	6 54.5%	4 33.3%	6 54.5%	2 40%	2 33.3%	2 25%	3 60%
3	Joseph	Pre	170	15	5	6	9	10	7	10	11	5	12	6
		Post	190	17	2	2	4	4	3	4	5	3	7	0
		Diff	20 11.8%	2 13.3%	3 60%	4 66.7%	5 55.5%	6 60%	4 57.1%	6 60%	6 54.5%	2 40%	5 41.6%	6 100%
4	Afene	Pre	71	11	5	7	7	6	7	10	10	6	11	0
		Post	100	8	3	3	5	2	4	6	4	2	7	0
		Diff	29 48.8%	3 27.2%	2 40%	4 57.1%	2 28.6%	4 66.7%	3 42.9%	4 40%	6 60%	4 66.7%	4 36.4%	0%
5	Umar	Pre	140	8	4	6	7	8	4	9	8	5	8	3
		Post	180	14	2	3	3	6	4	6	4	2	7	2
		Diff	40 28.6%	6 75%	2 50%	3 50%	4 57.1%	2 25%	0 0%	3 33.3%	4 50%	3 60%	1 12.5%	1 33.3%

**KEY**

Con = Conjunction

PIM = Plural Marker

WE = Word Ending

Det = Determinant

Pre = Pre-treatment

Post = Post treatment

RS = Rigid Sentence

WWA = Wrong Word Arrangement

WC = Wrong Capitalization

IULU = Inclusion of Unrelated Language Units

NWU = Number of Words Used

NSU = Number of Sentences Used

UFA = Unfamiliar abbreviations

Table 3 shows the difference in number and percentage between the pre and post treatment performance of the students in continuous writing as depicted by the number and forms of the writing errors made by the individual students. The difference in performance between the pre and post treatment scores per area of assessment represents the magnitude of improvement. Table 3 specifically shows the number of words and sentences used by each student (before and after treatment), in their write-ups. For example, the Table shows that Kudu (on Serial number 1), used 163 words in 13 sentences at the pre-treatment stage; and at the post-treatment stage, he made use of 180 words which were incorporated in 16 sentences. The figures on the table (for the different errors measured) reflect the actual number of errors observed in the students' write-ups. For example, the analysis on the table shows that Kudu omitted 12 verbs in the 13 sentences he used during the pre-treatment exercise, and had 8 verbs omitted in 16 sentences during the post-treatment evaluation. Similarly, he omitted 3 conjunctions, 10 plural markers, 15 word endings, and 11 determinants in 13 sentences at the pre-treatment test, while at the post-treatment, he omitted 2 conjunctions, 6 plural markers, 8 word endings, and 7 determinants in 16 sentences. The difference in performance shows 33.3% improvement on verb omission, 33.3% on conjunction omission, 40% improvement on omission of plural markers, 46.4% on omission of word endings, and 36.4% improvement on omission of determinants.

The analysis on Table 3 further shows that Kudu wrongly capitalized 15 out of the 163 words he used in the 13 sentences during the pre-treatment exercise, and after the treatment (post-treatment), he wrongly capitalized 5 out of the 180 words he used in 16 sentences. This represents 66.7% improvement. The table also shows that Kudu recorded 75% improvement on the making of rigid sentences, 60% improvement on inclusion of unrelated language units, 50% on wrong word arrangement in sentences, and 100% improvement on use of unfamiliar abbreviations. The description of the analysis of the errors given above for Kudu (serial number 1) is applicable to all the other students who participated in the exercise, whose scores and performances are recorded on Table 3.

It is worthy to note that since the table is analyzing errors made, a reduction of scores recorded in the post-treatment, shows there is an improvement, hence, where a student recorded zero (0) error under a particular trait, it means there was 100% improvement. This implies that when the pre and post treatment scores are the same, it means the student did not make any improvement in that aspect even with the treatment exercise. An example is the case of Umar (serial number 5) who omitted 4 determinants in 8 sentences at the pre-treatment, and repeated the same omissions at the post-treatment evaluation though he had 14 sentences at the post-treatment stage as against 8 in the pre-treatment assessment. Another example is the performance of Joseph (serial number 3) in ‘unfamiliar abbreviations (UFA)’. The table shows that Joseph had 6 unfamiliar abbreviations at the pre-treatment assessment, while at the post-treatment, he recorded 0. This means that he heeded the corrections made during the treatment and ensured that he did not include any unfamiliar abbreviations in his write-up during the post-treatment test, hence he recorded 100% improvement on UFA. This in effect shows that the treatment exercise helped in reducing the writing errors of the students.

### **Discussion of Findings**

The analysis of the errors shows that though the students made some progress in their written expressions after the treatment, the success may not be regarded as remarkable. For example, all the students that participated in this research made all the errors discussed in the study even after the treatment, though at a reduced magnitude as shown by the content of the row tagged ‘difference’ for all the students. The study revealed that the students made the highest improvement in ‘Rigid Sentences (RS)’ where the improvement rate ranged between 40% and 75%. This was partially because their attention was drawn to the need to alternate their style of writing. This, they practiced manually in sign language before the writing exercises.

The lowest rate of improvement was recorded for word ordering (Wrong Word Arrangement (WWA)), where the improvement rate ranged between 12.5% and 50%. The reason for this low performance was because many of the students felt that there was nothing wrong with their sentences since the sentences contained all the words required. This is to say that the students felt the order of the words in a sentence did not matter. For example, “*My brother is junior dead*” meaning “*My junior brother is dead*”. This is what Kretschmer and Kretschmer (1980) call violation of general transformation restriction. The authors in analyzing the expressive performance of deaf students opined that deaf children perform syntactically, semantically, and pragmatically at levels below that of their cognitive processing abilities. Supporting Kretschmer and Kretschmer (1980), Riekehof (1993) explained that deaf children

who are conversant with American Sign Language (ASL) often place words in sentences without considering the word order because ASL does not have strict rules for word order.

Another area where the students made appreciable improvement was in the addition of unfamiliar abbreviations (UFA) in their write-ups. They used abbreviations such as K/Namoda, B/Ladi, Poly, Laf and FSP. Severally, this researcher had to call the students to tell her what they were trying to say as she did not understand what they were writing or talking about thereafter, the researcher explained the need for the students to write out all their words if they knew their spellings. Hence, Kudu and Joseph were able to achieve 100% improvement in UFA because they heeded instruction, while Afene never gave any unfamiliar abbreviations at all.

Another very prominent error constantly made by the students was ‘Wrong Capitalization’. Many of the students capitalized the first letters of any word of their interest, not minding the rules of writing in English language. The students sometimes did not capitalize the first letter of the word in a sentence, but rather capitalized the first letter of a word that interested them in the sentences. For example, “second senior Brother got Married my”; “my sister is Business as a Saloon”; “my Father have two Wife”.

### **Conclusion / Recommendations**

From the analysis of the performance of the students after the treatment exercises, it can be concluded that the treatment was helpful in enhancing the continuous writing ability of the students. Based on the findings therefore, it is suggested that the students should form the habit of reading story books and magazines (which provide a definite trend of activities), and try to retell in writing, the content of what they read. This will enable them put their thoughts down in writing, explaining ideas, addressing points and making analysis where required, in their course examinations. This implies that they will pass most of their courses, thereby making a headway in life. This is in line with the views of Pennebaker, Mehl, and Niederhoffer (2003) that linguistic styles (which is reflected in function words such as pronouns, prepositions, conjunctions, articles, and auxiliary verbs) can predict who benefits from writing. The authors observed that effective therapy often requires a therapist who is a strong believer in the methods he or she is using. This is probably because a feature that may work well with one group of people may not be effective for another. So teachers need to vary their methods of instruction for the benefit of these unique learners.

This calls for dedication on the part of the teachers. All teachers working with individuals with profound hearing impairment (the deaf) should try to encourage them to write logical and correct answers on paper, each time they (the teachers) throw questions to the entire class at the end of teaching for the day. This way, they will be able to monitor the progress of the students in continuous writing. Furthermore, it is suggested that all teachers of children with profound hearing impairment should make out time to apply the literacy activities discussed in this study making modifications where need be as was done in this study in order to enhance the writing skills of the students. For example, though the Expressive Writing Therapy of Pennebaker (which was the theory on which this work was based) was developed primarily to assist patients with psychological trauma, and the timescale was just 15 minutes of continuous writing for four consecutive days, the writing exercises in the present study were modified to meet the needs of the group of participants, in content and timescale.

Departmental heads should provide 'Read Me' texts in files containing current news for the week, and other important information. This file should be made accessible to the deaf students to enable them always have something to read. In addition, lecturers and heads of departments who work with hearing impaired students should insist on the students expressing themselves in writing where they cannot communicate in sign language. They should point out the students' writing errors after getting the information conveyed in the written text. This should be done with love to make the student understand that the teacher cares for him/her.

Finally, parent and relations of deaf students should try to buy story books for them. They should encourage the deaf students to read even at home and practice writing the summary of the stories they had read. No matter how poorly written the texts may be, care-givers should show interest in the content of the texts. This way, the students will develop great interest in reading and writing which will definitely affect their performance in the courses they do positively.

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# **The Place of Supervision in Teacher Professional Development: A Case Study of Supervisory Practices of Education Officers in Ekiti State Primary Schools**

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**Abstract:** *Supervision is connected to teacher professional development. However, as it is currently practiced in Ekiti State primary schools in Nigeria, it does not appear that this process is effectively contributing to teacher professional development. This is because the existing supervisory practice of Education Officers is hierarchical and authoritarian and does not promote the autonomy of the teacher as a professional. My research looks at current supervisory practices and the prevailing notion of professional development.*

*The study is qualitative and it employs the case study method of inquiry. Participants in the study comprised of four selected Education Officers and twelve teachers from four different Local Government Education Authorities, of Ekiti State Universal Basic Education Board. Initial findings revealed that due to poor supervisory practices teachers are often excluded from decision making when it comes to issues relating to their professional growth. The research suggests that a more democratic process which sees the teacher as a reflective practitioner will usher in an authentic conception of teacher professional development. The significance of this study relates to the fact that proper educational supervision for teacher professional development would enhance the overall goal of instructional delivery.*

**Keywords:** Supervision, professional Development, Education Officers, Primary School Teachers.

## **Introduction**

The place of supervision in teacher professional development towards the attainment of enhanced instructional delivery cannot be over emphasized. The process of improving the quality of the teacher and her work has a lot to do with the type of supervision available to the teacher within the educational system. When properly understood and practiced, supervision is capable of harmonizing all variables that connect to effective instruction delivery. Zepeda (2007, 29) posited that the aim of instructional supervision is “to promote growth, development, interaction, fault free problem solving and a commitment to building capacity in teachers”.

The problem which this paper examines is that in Ekiti State of Nigeria, supervision and teacher professional development have been ill defined in such a way that there is hardly any alignment between supervision and teacher professional development. Supervision has been seen as a fault finding activity which places the supervisor much over the supervisee. The consequence of this conception of supervision is that teachers have been stifled by the hierarchical way they have been socialized in their growth as professionals. This has made it difficult for them to develop into autonomous professionals.

The paper examines the existing supervisory practices of Education Officers in Ekiti State primary schools and argues that based on its authoritarian and hierarchical nature, they cannot promote effective teacher professional development. Professional development in the paper is conceived as on-going reflective practices that ensue through the use and adaptations of effective supervisory processes agreed on by both supervisors and supervisees.

The research questions which this paper will attempt to respond to are the following:

- (1) How do Education Officers conduct supervision in Ekiti State Primary Schools?
- (2) How do Education Officers see their roles as supervisors of primary school teachers?
- (3) How do Primary School teachers experience supervision by Education Officers?
- (4) How do school teachers understand the work of Education Officers with respect to their professional development?

It is the qualitative approach to inquiry that informs the methodology of the paper. The form of inquiry that is employed is the case study while interpretive (constructivist) and symbolic interaction are research paradigms.

Purposeful sampling procedure, which is the selection of subject in accordance to research interest was used to select the population for the study. Participants in the study comprised of selected Education Officers all of who are in the rank of Chief Education Officer from four different Local Government Education Authorities. The choice of schools and selection of primary school teachers were based on zoning and the advice of both Education Officers and the Head teachers of the selected schools. The Director of School Services at the Ekiti State Universal Education Board, the Permanent Secretary and the Executive Chairman, Ekiti State Universal Basic Education Board were also interviewed.

The types of interview that were used are the semi structured and informal interview. In using the semi-structured method, the researcher made use of guided questions to interview respondents. The informal or unstructured interview was also used to make it more conversational.

The paper finds out that the existing supervisory practices which are authoritarian and hierarchical tend to intimidate teachers and as such their autonomy as professionals is eroded. The paper suggests that an authentic teacher professional development can only evolve if supervisory practices are democratic and collegial.

### **Conceptual Framework**

The need for a conceptual framework is informed by Becker's (1993) observation that a research work cannot take off if we do not have an implicit theory of knowledge. The conceptual framework draws upon the concepts, terms, definitions, model, and theories of a particular literature based on disciplinary orientation.

**PHILOSOPHICAL ASSUMPTIONS INFORMING THE CONCEPTUAL FRAMEWORK INCLUDE:**

Subjectivity as a construct of social reality, Case Study as a research genre, Interpretivism and Symbolic interaction as philosophical and sociological underpinnings, while the research design is Inductive.



<b>The Existing Supervisory practice in Ekiti State</b>	<b>My vision of supervision</b>
Hierarchical	Egalitarian
Authoritarian	Democratic
Judgmental	Non-Judgmental
Superior/Subordinate Relationship	Collegial
Traditional view of Supervision	Contemporary supervisory processes
Professional development as Seminars, conferences and workshops	self-assessment, ongoing reflection, school based professional development
Organizational motivated professional development	Self-motivated professional development
Socio-cultural differentiation	Particularize in universalism



Rationale for change is influenced by  
 UNESCO/ ILO Stance  
 Improve Quality of Teaching  
 Policy Issue- Professionalization of teaching  
 Nigeria National Policy on Education.  
 Teacher Registration Council  
 Theoretical Issue- Global Thinking

Figure 1 above consequently puts forward the following positions:

**The Existing Structure**

The existing structure of supervisory practice sees the supervisor as an inspector of schools and teachers as the persons to be subjected to inspection without prior notification (Pawlas & Oliva, 2008; Sergiovanni & Starrat, 2002). The supervisor is seen as the ultimate and custodian

of knowledge while the teacher is seen as subservient to the supervisor (Education Officer). Even when the supervisor is assumed to occupy a higher status, Education Officers have failed to manage the relationship in such a way that the teacher will not feel alienated in the supervision process. Professional development is also seen as a process by which the teacher improves himself/herself through the process of formal education, attendance at seminars, workshops and conferences.

The need for a re-think of the existing culture of superior /subordinate relationship between Education Officers and primary school teachers has become so important, given the contemporary model of supervision and the positive impacts that it has on professional development of teachers. Thus, the research will revisit the existing supervisory practice in Ekiti State against the contemporary practice of school supervision in the literature. The new model of supervision which is collegial rather than authoritarian will enable Education Officers to adopt a more democratic approach to school supervision by allowing teachers to be part of the supervisory process.

### **Need for Change**

Teachers and supervisors need to be aware of the current situation about their jobs and their relationship with one another and to other stake holders in the educational system. Teachers and supervisors need to be aware of their duties and how these duties relate to the enhancement of instructional delivery which is the overall goal of teaching and supervision. Thus supervisors are expected to work democratically with the teacher to achieve collective goals of education at local, national and international levels.

### **My Vision**

My vision of supervision sees strong connection between supervision and teacher professional development, which is explained by reorienting the minds of both Education Officers and teachers about their understanding and conception of supervision and professional development. One important way of doing this is to sensitize the Education Officers and teachers to be aware of their professional and social identities. It is hoped that this awareness will result in the change of perception of the act of supervision and the notion of teacher professional development. The meaning making of some vital concepts involved in effective supervisory practices should involve a sort of social interaction and improve communication that will promote a collegial and collaborative interaction between Education Officers and teachers which will ultimately fulfill the goal of effective instructional delivery in the classroom.

## **Pedagogical Strategies That Suit Authentic Supervision and Teacher Professional Development**

### **Supervision as Democratic and Collegial**

#### **The Concept of Supervision**

Beach and Reinhartz (2000, p. 7) observed that one of the earliest definitions of supervision links the term with the word “oversee” or “has oversight of”. The dictionary definitions expand on this early meaning indicating that to supervise translates into directing or managing the work of others. Taking a clue from this and bearing in mind that the concept of

supervision is dynamic, different authors at different times have come up with different definitions of supervision.

As it relates to educational supervision, the two authors gave a brief synopsis of the history of supervision. According to them, in the early 1930s when supervisory roles and responsibilities were emerging, the leaders in the National Education Association (1931) defined supervision as leading effort to improve teaching, observing in classrooms, and conferencing with teachers. By the late 1950, supervision was viewed as an activity that helped teachers do their jobs better and improve the learning situation of children (Wiles & Bondi, 1980). During the 1980s, supervision was seen as a change process (Harris & Bessent, 1969). Over the last two decades various authors have defined educational supervision in relation to their different philosophical perspectives. These include supervision as instruction (Oliva & Pawlas, 1997); supervision as organizational (Wiles & Bondi, 1986) and supervision as people oriented (Wiles & Lovell, 1975).

Within the Nigerian context, educationists and scholars have defined supervision in various ways. For example, Ajayi and Ayodele (2002) defines supervision as the process of bringing about improvement in instruction by working with people who are working with pupils". On the other hand, Bessong and Ojong (2009), refer to supervisory practice as an interaction between and among people with the prime aim of survival of any organization. According to them, the school system is an organization where people come together for the purpose of learning. For effective teaching and learning there is need for exchange of ideas between teachers and pupils and collaboration between supervisors and teachers.

Two main approaches that have been identified with supervisory practice in education are the authoritarian scientific bureaucratic model and the democratic model. Although the two approaches have become popular as models of educational supervision, over the years other approaches have evolved but with their principles being based on the two approaches identified.

### **Authoritarian Scientific Bureaucratic Model**

This approach has as its proponent Frederick Taylor's (1911- 1947) scientific management and Max Weber's (1864 -1920) bureaucratic approaches. The two approaches have been treated as different but in this paper they are discussed together. This is because they are about control, accountability and efficiency of the worker in what Sergioivanni & Starratt (2002, p. 14) refer to as "an atmosphere of clear-cut manager-subordinate relationships". This approach that points to controls according to Tracy (1995, p. 323) suggests that "teachers were not viewed as professionals but as workers to be directed and monitored". Furthering this argument, Sullivan & Glanz (2005, p. 31) have interpreted this model as "inspectional and 'hierarchical", where "supervisors are experts and teachers are not". For them, to improve instruction," teachers need the supervisors' help since they do not have the expertise and supervisors and teachers are not equal partners". On this approach, the task of a supervisor is "ascertaining that schools complied with set rules and regulations" (Bolin & Panaritis, 1992, p. 32).

Increasing efficiency in organizations is the key word in this model. Similarly, improving teachers' instructional practices is the main focus of instructional supervision. Consequently, the model assumes a superior/ subordinate relationship between the supervisor and the teacher. Thus Mosher & Purpel (1972, p. 117) see instructional supervision as 'teaching teachers how to

teach'. This view assumes that the supervisor is superior to the teacher and has more knowledge in teaching than the teacher. For instance, in Ekiti State primary schools, inspection of classroom teachers takes the form of checking of records, lesson plans, schemes of work, and pupils' progress records.

One of the basic principles in this approach to supervision is the fundamental belief that the main obstacle to efficiency in an organization is failure to work out ways to coordinate and control workers (Evans, 1991). This is seen as management's failure to study workers' method of working. Research is recommended in order to devise job specifications and instructions to carry out the tasks, strict control of work and proper compensation for work done in an effort to make workers happy and work towards the achievement of the organization goals (Sergiovanni & Starratt, 2002). Strict organizational structures that determine the social relations are seen as key to achievement of efficiency. Within the bureaucratic organizational structure are leaders who draw their authority from their positions of leadership (Sullivan & Glanz, 2005). It is this authority that is used to control workers creating hierarchies in an organization and rules to be obeyed according to ranks (Beach & Reinhartz, 2000). On this approach, instructional supervision is the 'best' methods of teaching and it is administered by the supervisor and enforced on teachers (Lucio & McNeil, 1969, p. 9).

In conclusion, this approach to instructional supervision perceives the supervisor as the expert; hence the teachers act according to supervisors' directions. The existing supervisory practice in Ekiti State Primary schools is modeled along this form of supervision. The existing supervisory practice in Ekiti State Primary schools is aligned with the description of supervision by the Federal Ministry of Education as based on infrastructure and compliance with rules and regulations rather than standards and quality of education learners are receiving in schools. Most head teachers and teachers mistrusted the inspector and most inspection reports were regarded as classified documents and copies were not widely disseminated, (Induction Toolkit for New Education Evaluators (Inspectors, 2010)

### **Democratic Supervision**

The democratic/ humanistic approach is a reaction to the authoritarian scientific bureaucratic approach that is seen to be suppressive and lacking in human relations (Sullivan & Glanz, 2005). It stresses the importance of engaging persons in communicative discourse at all levels in an organization. Thus supervisors and supervisees are seen as partners in the decision making process; the supervisor being an informal leader. On this model, supervisors and supervisees respect one another and wide participation in formulation of policies affecting teaching and learning is encouraged. In general, it advocates the use of democratic leadership where "every worker has a voice" (Evans, 1991, p. 83). The main underlying assumption is that "teachers would do their best in a supportive environment" (Tracy, 1995, p. 323). Supervisors are therefore expected to offer the supportive environment by focusing on teachers' personal satisfaction through established trust.

Expounding on democratic human supervision, Lucio and McNeil (1969) view supervision in terms of teachers' emotions where 'teachers had feelings and emotions which were appealed to for action'. Similarly, Sergiovanni and Starratt (1983, p. 3) explain the democratic human relations approach as one where, "teachers were viewed as whole persons rather than

packages of needed energy, skills and aptitudes to be used by administrators” to achieve organizational goals.

Supervision under the democratic human approach is associated with guidance that respects human personality and encourages partnership between the supervisor and the supervised (Alfonso, Firth, & Neveille, 1981). It assumes that effective supervision is achieved when teachers and supervisors work together (Lucio & McNeil, 1969; Sergiovanni & Starratt, 2002). Teachers' professional growth and development are perceived as important functions of supervision under the human democratic approach (Beach & Reinhartz, 2000; Blase & Blase, 2004; Sullivan & Glanz, 2005; Waite, 2000; Wanzare, 2004). The assumption is that as teachers are assisted to grow professionally and improve their skills, the impact will be seen in their performances.

The attributes of democratic human supervision are well summarized by Mosher & Purpel, (1972, p. 117) as the protection of the “integrity of the individual teacher' concern for 'realizing and sustaining the talent of individual teachers”. They advocate a warm, friendly relationship between the supervisors and teachers which is portrayed in their shared responsibility. This suggests collaboration and consultation by the parties involved which can only be achieved if good communication is involved (Sullivan & Glanz, 2005; Sergiovanni & Starratt, 2002).

A recent addition to the human relations approach is the human developmental approach that has been spearheaded by (Glickman, Gordon, & Ross-Gordon, 2007) and also focused on by Sullivan & Glanz, (2005). Although this is treated in many books as a different approach, I see it as an extension of the human relations democratic approach because it gives room for the autonomy of the subject. According to Tracy (1995, p. 324), the approach “combines the concerns for a teacher's personal needs with concern for the productivity of the organization”. Clinical supervision, developmental and differentiated models of supervision have their roots in the human democratic approach. Other approaches that are mainly referred to as alternative approaches to existing supervisory practices are peer coaching, peer mentoring, and action research(.Acheson & Gall, 2003; Glickman et al, 2007; Sergiovanni & Starratt, 2002; Tanner & Tanner, 1987).

### **Teacher Professional Development**

The trend in our contemporary world is to strive to be recognized as a professional. This is because every occupation wants to be recognized, distinguished and accorded respect in relation to the work they do. However, little effort has been made to address the question about what is a profession, and what is the difference between an occupation and a profession.

The Oxford English Dictionary (2011, p. 1045) defines a profession as “a paid occupation especially one that involves prolonged training and a formal qualification”, and Encarta Encyclopedia (2003) defines a profession as occupation requiring extensive education or specialized training.

### **Supervision and Teacher Professional Development**

The main aim of instructional supervision as portrayed by the literature is to help teachers improve their classroom practices and hence improve learning. Embedded in this view is a

conception of development of the teacher which can make him/her perform the roles expected of him/her. According to Courtney (2007) supervision aims at upgrading the teachers' skills, the strategy which seems to be commonly used is professional development (Darling-Hammond, 2000; Day & Sachs, 2004; Flecknoe, 2000; Fullan & Hargreaves, 1992; Glickman, Gordon, & Ross-Gordon, 2007; Fullan & Hargreaves, 1992; Norris, 2004).

Wiles and Bondi (1980) advance a convincing relationship between supervision and professional development. They argue that staff development is a pre-requisite to effective supervision as it gives teachers and supervisors' skills and knowledge of instruction. In addition, skills gained during staff development can be refined in supervisory activities. Supervision also helps to identify areas that need to be improved; hence data collected during supervisory activities can be used to plan for staff development activities. In addition, staff development activities can provide a good forum for supervisors to collect crucial data that can be used for improvement of teaching and learning. Both the teacher and the education officers are social beings that possess identity that relates to their personal, social and professional lives, understanding of these identities in their relationship with one another is desirable in furtherance of their professional obligations.

### **Issues Relating to Identity Perception/Construction and Interaction among Supervisors and Teachers**

Identity refers to our understanding of who we are, who other people are and who other people think we are (Danielewicz, 2001). Epstein (1998) posits that identity provides a shared set of attributes, values that enable the differentiation of one group from another. Identity is essentially a concept of synthesis, integration and action. Varghese, Morgan, Johnston & Johnston (2005) maintain that in order for teachers to have a better understanding of the processes of teaching and learning, it is important for them to get a clear sense of who they are and what they are assigned to do. Sachs (1999) posits that professional identity is used to refer to a set of externally ascribed attributes that are used to differentiate one group from another. Professional identity thus is a set of attributes that are imposed upon the teaching profession either by outsiders or members of the group itself.

If there is going to be authentic processes of supervision and teacher professional development, then Education Officers and teachers must have a strong understanding of who they are and what they do respectively. Education Officers and teachers are supposed to undergo pre-service and in-service trainings. However, the content of their training defines who they are and what they do which subsequently affects their relationship in the process of instructional delivery. The process of symbolic interaction is a major disposition to be given consideration if one is to understand the interaction between teachers and Education Officers and vice versa. According to Haralambos, Holborn and Heald (2004) symbolic interaction is a sociological theory of human interaction which focuses on how people give meaning to things around them based on their perceptual conception of ideas which is influenced by their subjective lived in realities

The consistent mode of unannounced visits of Education Officers to schools and classrooms in an attempt to improve teachers' instructional deliveries has made teachers to develop an attitude and disposition to supervision as inspection, developing a culture of getting them what they want to see and not who we are or supposed to be as professionals.

The work of instructional supervision might not actually produce the desired effects on the supervisee based on the understanding of the concept and the interpretative meaning adduced to the concept by both the teachers and the Education Officers depending on the context of operation and actualization of job performance of the supervisee. How supervisee views the meaning and expected outcome of supervision is dictated by the method employed by the supervisor, which is a consequence of the understanding of the notion of supervision and the *modus operandi* of such. We act toward things in terms of their meaning for our plan of actions, or the execution of our plan of every “thing” we encounter. The understanding of the Education Officer about the identity of the teacher both its personal and social identity will be a motivating factor for striving to have a full knowledge of where the responsibilities lie in assisting the teacher to be more responsive and more reflective in the act of teaching.

### **Education Officers and Teachers as Reflective Practitioners**

Reflection was introduced and has been heavily advocated in teacher education since the 1980s as a result of Schon’s (1983, 1987) work to promote reflexivity and reflection. Reflection was thought of as a way of steering teachers into new and better ways of thinking, acting and acknowledging the complexity of teacher’s work. It was also seen as a way of enhancing teacher’s autonomy in the teaching profession (Chitpin, 2011). Dewey’s argument posits that we do not learn from experience. We learn from ‘reflecting on experiences’. Dewey’s argument supports the fact that experience on its own does not translate to learning but to serve as a scaffold for further and improve learning.

Zeichner and Liston (1996) emphasis was on reason for engaging in reflective practice “for in order to understand and direct our educational practice, we need to understand our own beliefs and understanding, so that much of teaching is rooted in who we are and how we perceive the world” (Farrell, 2004, p. 23). Taggart and Wilson (1998) as cited in Farrell definition of reflective practice should have change or self improvement as a final goal. Farrell puts all these definitions together in one sentence that reflective practice is a systematic and structured process in which we look at concrete aspects of teaching and learning with the overall goal of personal change and more effective practice. The awareness brought about through reflection leads to change not only in instructional effectiveness but also growth in practice.

Teacher interaction in the classroom with pupils, colleagues and supervisors should show a clear understanding of what our responsibilities towards them entails by clear assertion and delineations of roles and responsibilities that are bestowed on the teacher as a technician and a display of professional competencies. The concept of reflective practice centers around the idea of lifelong learning in which a practitioner analyzes experiences in order to learn from them, a deliberate attempt to be open- minded, an open perspective, to allow for questioning and rethinking of alternatives by both teachers and education officers. The Education Officers and the teachers need to be encouraged to work up to the level of becoming reflective practitioners in their professional responsibilities. This state of mind relates to examining beliefs, goals and practices, to gain new and deeper understanding that would result into actions that could improve learning for students. The Reflection upon one’s experience permits new learning to occur. In its absence one runs the risk of relying on routine teaching/ practice that does not promote growth.

## **Supervision and Teacher Professional Development: A Case Study of Supervisory Practices of Education Officers in Ekiti State Primary Schools**

In this section of the paper, I shall present the initial findings of the data collected from the process of interviewing education officers and teachers in selected primary schools in Ekiti State of Nigeria. All names used throughout this paper as respondents are pseudonym.

The responses of teacher participants confirmed the existing practices of supervision where Education Officers (EOs) visit schools unannounced. They believed that they are used to this form of supervision because they have been socialized in that direction. The EOs and administrators also confirmed this, stressing that if visits are announced, there is the tendency for teachers to embark on a form of window dressing, putting things in place merely for the purpose of the visit rather than a well planned programme towards professional growth and enhanced instructional delivery.

The teacher participants may be divided into two—the experienced ones that is those with many years of teaching experience and the “novice”, the teachers who have just started to teach. The experienced teachers believed that even though education officers do not give prior notice of visits, they are always prepared, by getting ready all classroom documents usually inspected on classroom visits by the education officers. As Idowu said, “The visits of education officers were regarded as part of the daily routine as a teacher. We have been socialized to expect inspectors in our schools at any period of the school day. We are always prepared by school heads, the Heads of Department, and we in turn prepare the new teachers for such visits.”

On the other hand, the new teachers expressed a kind of trepidation towards supervision by education officers. According to them, the visit of the education officers is usually accompanied by fear because the impression created in their minds is that of a situation in which they are being observed for the sake of fault finding. This situation is worsened by the fact that the supervisors carried out this act of intimidation before their own pupils. One new teacher expressed this when she shared, “I felt nervous that I was being watched, not sure my teaching will meet the expectation of the inspectors, I hope I will get used to the system as the days go by.”

All the three administrators believed that the school supervision by Education Officers should not be announced. In the words of one of them, “Teachers need not be told of classroom visits to avoid window dressing, teachers are expected to be prepared for classroom inspection at any time of the school day.

These responses made me ask a more probing question. I asked for the opinion of the teachers in relation to improving supervisory practice in the primary schools. The teachers explained that the visits of Education Officers could be more meaningful if teachers are informed in earnest of the day of visits to give the teacher the opportunity of discussing in details with Education Officers their instructional challenges and also the Education Officers could be well prepared to give the needed support on instructional matters. Makinde, with many years of teaching experience and who has risen between the ranks, felt that, “Education Officers have the right to be in the classroom, some of them were teachers before becoming inspectors of schools. We will work better if they make us to be more familiar of their visits.” Another teacher,

Bolarinwa, shared this view. She explained, “I don’t have a problem with them coming to the classrooms but they may make us feel better when we know their work schedules.”

The above statement is suggestive of the fact that teachers will prefer a more relaxed situation where both teachers and EOs meet to deliberate and agreed on issues to be discussed relating to teacher professional development and effective instructional delivery. This is in line with the description of supervision by Beach & Reinhartz, (2000) as partnership, collegial, coaching and mentoring, the view that supervision should be democratic and collegial.

Another major finding is that teachers are not involved in planning for their own professional development activities. Conferences, seminars and workshops are the most recognized form of teacher’s professional development by teachers and education officers. All the teachers agreed that since the Education Officers work directly with teachers in the classroom and are thus in a position to have firsthand knowledge of what the capabilities of the different classroom teachers they are in the best position to advise the government on developmental programs that are exigent for effective job performance and professional development of the teacher. Thus, it is Education officers that recommend teachers to attend conferences, seminars and workshops. These types of professional development activities are referred to as traditional, short and involve less learning, and collaborative activities and do not provide teachers with effective tools to foster meaningful changes in student learning, (Locks-Horsley et al., 1998). The implication of this position is that the autonomy of the teacher is compromised and this does not allow for an authentic teacher professional development.

Aina, who is an experienced teacher and who has served as an HOD for a number of years, has this to say: “Constant monitoring and supervision of instruction help us to work better and put the lazy teachers on their toes. Instructions on how to improve on teaching practices are given through seminars and workshops.”

Supervisory processes as understood and practiced by Education Officers in Ekiti State seem to be devoid of elements that can inform effective professional development of teachers. This perception of Education Officers of the concept of supervision is revealed in their responses to the question about the reason for engaging in school supervision. Ms. Toyin, one of the education officers stated, “The term Supervision as understood by me is to guiding, directing and making sure that the teacher do what is required to fulfill the primary objectives of teaching, which is pupils effective learning”. The focus of attention is the classroom teacher and her teaching techniques. School supervision includes overseeing the entire activities of the school in conformity with educational policies and also for the purpose of quality assurance.” Mayowa, an Education Officer, gave his own conception of supervision as the ability to impact teachers’ work and make a change.

When asked why Education Officers engaged in school supervision, Monisola, an Education Officer, was quick to say that, “School supervision is important to learning as it is a way of ensuring that the government huge spending on education is justified. Education Officers are employed to oversee teachers’ and pupils’ instructional practices on behalf of the government and articulate government policies concerning education matters and how they affect the work of teachers.”

Babasola, an experienced Education Officer, said, “Professionally I perform the task of overseeing teachers and pupil’s instructional practices on behalf of the government and articulate government policies concerning education matters and how they affect the work of teachers. Precisely as an education officer I ensured that effective instructional deliveries takes place in the schools”

From these responses, it seems safe to conclude that for these study participants, supervision is related to evaluation and supervision is different from inspection. The conflation of supervision with inspection has been responsible for why supervision is identified with a form of oversight carried out by education officers on teachers. Even when there seems to be awareness that supervision involves collegiality this awareness only comes by accident without both the Education Officers and teachers being aware of the reason why this should be so. Consequently, there is an urgent need to re-orientate the mind of Education Officers to appreciate the need to effect change in the mode of supervising teachers while teachers’ should be open to dialogue that is directed towards qualitative change. This is one of the significance of this study.

The act of linking supervision with government policy shows that supervision is often influenced by certain socio-political factors. Even when supervision has taken a global dimension, the peculiarities of the situation where supervision takes place cannot but influence the conception and practice of supervision.

Education Officers were also asked about how their work is connected to teacher professional development. Adebamigbe, an education officer, aired his views by saying: “teacher professional development is impacted during visitation to the schools - we observe instructional activities of teachers on daily basis by assessment of their teaching, this gives us the opportunity of identifying their areas of weaknesses and strength and as such I do suggest appropriate measure to put the teachers on correct path to growth”. Monisola explained, “I visit teachers in the classroom, taking interest in watching teachers teach and see how the teachers could be encouraged with activity that could help teachers structured instruction to make students more responsive.”

Education Officers feel that they know what is required of teachers for their professional development without engaging them in discussion about their own perception of professional development. None of the supervisory processes which entail pre-observation, conferencing and post-conference procedures was mentioned. This seems to suggest an authoritarian relationship between education officers and teachers an attitude that does not promote the autonomy of the teachers.

Professional development of Education Officers also tends to impact teachers’ professional development. When Education Officers were asked the question of how their supervisory practice can impact teachers’ professional development. Makinde an Education Officer, has this to say teachers’ professional development will occur through improved practice by EOs, I feel EOs must be exposed to seminars, conferences and workshops to upgrade their knowledge about instructional supervision for improved practice. It is also important to provide monitoring grants and monitoring vehicles to ease the visitation of Education Officers to the schools. There is also the need to ensure conducive work environments that can promote and

encourage the Education Officers to engage in research and be connected to the outside world through the latest channels of information technology. Bolarinwa another EO view was also similar when he averred as follows: “I know a lot of effort is required on my own part to ensure that I perform my work efficiently. As much as I love to do so I feel there is need for more support to the Education Officer from the government to place them at advantageous position to work more closely with teachers.”

Unfortunately, professional development of Education Officers is not within their control. They have to wait on funding from government and sometimes this funding does not come easily and on time. Therefore, if the development of teachers is based on the development of education officers, which may be affected by certain extenuating circumstances, it follows that the professional development of teachers will be hampered.

### CONCLUSION

It is a fact of life that changes are often difficult to come by from a form of life that we have been accustomed to. But it is also often believed that the only thing that is permanent is change. This position applies well to the notions of educational supervision and teacher professional development. In this paper, I have identified the good, the bad and the beautiful in existing notions of supervision and teacher professional development. The paper has suggested that the existing theory and practice in the two processes need revision to bring them in line with the current and global practice that sees the supervisor and supervisees as colleagues in the effort to bring about effective instructional delivery to pupils in the classroom. I have been lucky in this regard because I am both a student and an Educational Officer. This dual identity will definitely bridge the gap between theory and practice, for I will be in a good position to put into use what has been learnt in the formal academic setting to actualize the goal of the supervisory process in the primary educational system, especially in Ekiti State Primary schools of Nigeria.

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# **Best Practices in Online Pedagogy: Developing Engaging Interactive Communities by Capturing Digital Moments**

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**Abstract:** *This paper provides an account of a pedagogical strategy for developing authentic interactive online communities. The article reviews a teaching strategy for increasing student engagement through the development of authentic online communities. Using “Digital Moments” as a way to build inclusion in synchronous graduate and undergraduate online courses, the author describes how the teaching strategy increased student participation, developed student ownership of learning and encouraged collaborative processes between participants. In recent years the popularity of online education has increased significantly. This is in part due to its accommodation for anywhere, anytime learning, but it is also owing to the proliferation of high quality courses, as well as the emergence of more engaging learning management applications. Although the growth of online learning is quite substantial, our ability to effectively develop online communities has not kept pace. This narrative account provides a strategy to develop engaging and interactive digital learning communities.*

**Keywords:** Online Pedagogy, Authentic Communities

## **Introduction and Objectives**

In recent years the popularity of online education has increased significantly. This is in part due to its accommodation for anywhere, anytime learning, but it is also owing to the proliferation of high quality courses, as well as the emergence of more engaging learning management applications. Although the growth of online learning is quite substantial, our ability to effectively develop online communities has not kept pace. With online education becoming an integral part of academic institutions and corporations worldwide, support for such endeavors can be critical to the growth and development of an organization, thus making educators who are well versed in the complexities of e-learning and online communities a valuable resource.

This paper examines a simple yet powerful pedagogical strategy used in undergraduate and graduate online courses to create engaging learning communities. The author’s goal was to replicate the relationship-building moments which naturally occur as students enter a face to face class before the structured learning begins. In an effort to do this, each week students met synchronously in Adobe Connect. Classes of 20-25 students entered the virtual room to find individual share pods, or personal virtual screens over which they each had control. Within their individual pod, each student uploaded a Digital Moment. The content of the pods could include a variety of pictures, quotes, colours, or links to describe in a single snapshot how the person was feeling, or events that had happened during the previous week. As the course progressed, students began to arrive earlier to class, in advance of start times, and began to look forward to connecting with classmates and sharing their own Digital Moments with others. As a unique pedagogical strategy, qualities which one might not normally associate with traditional online learning emerged: empathy, humour, risk-taking, compassion and a shared sense of community.

From a group of distinct individuals whose learning lenses were geographically and culturally diverse, evolved a close knit community of learners where the playing field was levelled and the traditional roles of teacher and learner became imperceptible.

Good teachers narrow the gap between students and their goals, and they do so in an extremely personal context. Reaching our students means taking risks, and crossing personal territories where meaningful relationships can occur, a notion often foreign to academic culture. But excellent teachers open themselves fully as human beings to their students. They passionately cross the sometimes treacherous bridges that lead to new and often uncharted territory, especially in digital learning environments that are new to students and teachers alike. Eisner (1997) concurs that these “edges can be treacherous but they can also be exciting” (p. 4). As Palmer (1998) states “good teachers possess a capacity for connectedness. They are able to weave a complex web of connections among themselves, their subjects and their students so that students can learn to weave a world for themselves” (p. 11).

### **Theoretical Framework**

The overall theoretical framework for this paper emerges from the integration and intersection of four major areas. First, Mishra and Koehler’s (2006) work on technological pedagogical and content knowledge provides a pillar upon which the author examines the use of Digital Moments as an online pedagogical tool. The second pillar revolves around the notion of authentic pedagogy, and the role of the self in learning (Hunt, 1987; Schon, 1987; Palmer, 1998). A third pillar essential to this framework, is the qualitative inquiry approach of Eisner (1998) and the uses of creative arts-based approaches to educational inquiry through alternative modes of data representation (Eisner, 1997). Finally, the structure is complete with the inclusion of narrative inquiry, as this frames the practice of using Digital Moments in online classes to tell learners’ digital stories. (Connelly & Clandinin, 1990).

Mishra and Koehler’s (2006) work states that there are three main components of teachers’ knowledge including content, pedagogy, and technology. In addition, they state that “equally important to the model are the interactions between, and among these bodies of knowledge” (p. 62). Digital Moments provide a lens through which these elements can be viewed both as a result of, and in spite of the limitations of each component. A second pillar resides in Hunt’s (1987) work on the role of self in learning. This approach is also key to the framework, as it aligns with the author’s convictions that her strategies to create community in f2f classes could also be used in online environments. Thus, the author is encouraged to trust her instincts. Hunt states that

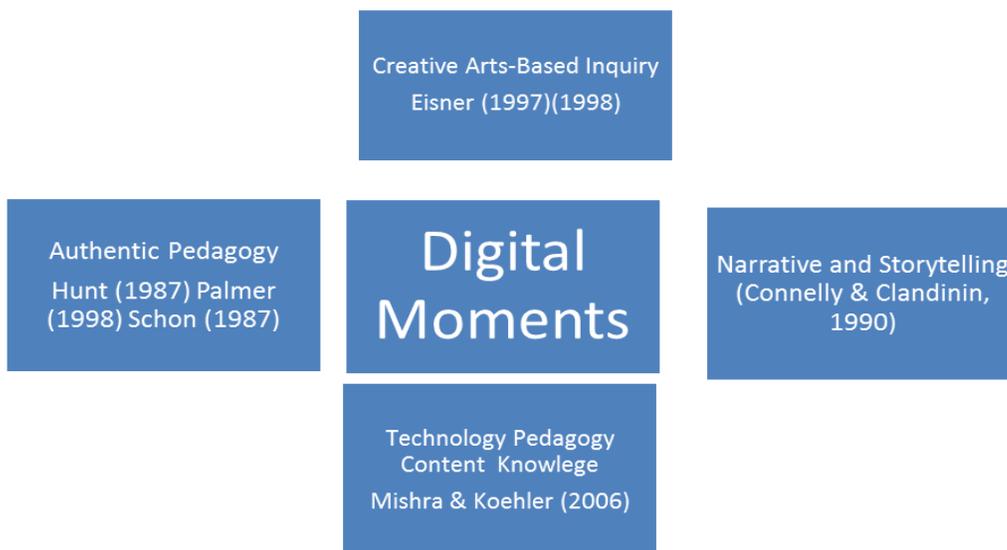
your common sense ideas and your unexpressed theories, growing out of your own personal experience, provide enormously rich sources of knowledge about human affairs. By beginning with yourself, you are taking advantage of this rich reservoir. (1987, p. 1)

Schon’s (1987) concepts of ‘reflection-in-action’ and ‘reflection-on-action’ also frame this work as Digital Moments provide opportunities for shared reflection on the learning process. In concert with this is the work of Palmer (1998) whose claim that “teaching cannot be reduced to technique” argues for the role of relationships in good teaching (p. 11). Thus, developing Digital Moments moves beyond the mere teaching of content, acquiring pedagogical competence or learning new technical skills. It supports the development of instructor-student and student-student relationships.

The third pillar of this theoretical framework rests in qualitative approaches to educational inquiry. Eisner articulates that there are good reasons to use arts-based data, that photographs, video and film have enormous potential to help us see a scene and can provide the raw material for interpretation and analysis. The neglect of such potentially powerful resources is due to habit, custom, old norms, and limited views of the nature of knowledge. (1998, p. 188)

This leads naturally to the fourth pillar which revolves around the power of narrative storytelling. “Qualitative studies of classrooms, teachers are usually expressed in stories” (Eisner, 1998, p. 189) or what Lightfoot (1983) calls “a portrait” of the learning environment. Connelly and Clandinin (1990) concur that narrative story-telling is an effective means of analyzing teaching and learning experiences.

At the center of this framework rests a pivot point around which the ideology moves depending on the learner’s personal and professional story. Digital Moments depend on each of these elements of the framework: authentic community, narrative storytelling, creative qualitative inquiry, and technological, pedagogical and content knowledge. Essentially, each individual in the class resides at the center of the framework; each member takes a role in driving the process forward. This empowers students and increases accountability for, and ownership of, the learning. In addition, it strengthens the community as people begin to care for each other; the virtual learning space becomes a safe, creative environment. It becomes a learning environment that not only protects our cognitive growth but celebrates the human aspect of the learning experience. While this may be antithetical to the traditions of academia, 21<sup>st</sup> century learning demands that we re-inject our humanity into the process. Digital Moments are one step forward in this evolution.



Thus, the primary research questions are: How do Digital Moments describe the emotional state and readiness to learn that students and instructor bring to class? How does the development of caring relationships online have an impact on learning? How does this practice of weekly sharing

of Digital Moments create an engaging authentic community? How will these personal stories and narratives of learning influence participants' willingness to take risks and learn new technological skills?

## **Methodology**

This project occurred in three phases and was used to test the effectiveness of using Digital Moments as a teaching strategy to create authentic online communities. The challenge of creating an online community given a compressed timeline during a short spring term and the brief synchronous amount of time in class was daunting. Each week students and instructors submitted and shared a Digital Moment through individualized share pods in adobe connect. Each student had ownership of their own virtual pod and control over its contents. These digital moments could represent an emotion, a moment from their week, a quotation, you-tube clip or art work. Digital moments allowed the participants and the instructors to share their stories, to bring their humanity to the learning environment in a safe and respectful way. Each person sharing a digital moment was telling their narrative, a method of educational qualitative inquiry that has a long history in educational research.

**Phase 1** was a pilot project to try this new digital teaching strategy and it occurred over one term of teaching a graduate online course entitled "Authentic Assessment." Participants in the pilot phase were 21 graduate students and the instructor who was an Assistant Professor in the Faculty of Education. Classes met three times a week for three hours over a four week period in the summer term. Anecdotal reflections from students recorded in Blackboard chat rooms, audio recordings of Adobe classes, and journal notes from the professor were used to reframe and improve the strategy.

**Phase 2** involved using the same digital moment teaching strategy in an undergraduate course entitled "Psychological Foundations and Digital Technology – Adult Education Focus". Participants in phase 2 were 26 undergraduate students in a Bachelor of Adult Ed Digital Technology degree in their 3rd year, the instructor, and a tutorial assistant. Students viewed two hours of video podcasts created by the instructor each week, prior to meeting in Adobe Connect for tutorial for one hour per week over a twelve week period. Anecdotal reflections from students recorded in Blackboard chat rooms, audio recordings of Adobe classes and journal notes from the professor and tutorial assistant were used to reframe and adjust the strategy.

**Phase 3** involved re-visiting the use of the Digital Moment strategy in a second term of the graduate course "Authentic Assessment". Participants in phase 3 were 23 graduate students and the professor. Classes met for three hours per session twice a week over a six week period in the spring term. Anecdotal reflections from students recorded in Blackboard chat rooms, audio recordings of Adobe classes, and journal notes from the professor were used to determine how the strategy contributed to a sense of online community. Student participants in the study gave informed consent and were given permission to withdraw from the project at any time. Digital moments were collected by a tutorial assistant and kept in an e-folder for future reference.

## **Rationale for Methodology**

The methodology for this study examined and identified both the personal and professional aspects of students' lives. Using qualitative inquiry and narrative methods of investigation, the journey towards authentic online pedagogy was observed and documented. The

process-oriented nature of excellent teaching required the researcher to study learners' lives and stories using Digital Moments. The research methodology used in this study is heuristic, and the concept of online community is described in order to "illuminate the reader's understanding of the phenomenon, bring about the discovery of new meaning, extend the reader's experience or confirm what is known" (Merriam, 1998, p. 30). The research followed a process oriented approach to studying students' stories. This narrative qualitative inquiry was focused on examining the journeys that these learners have traveled along the path to being a member of the online community. Thus, this conceptual framework allowed a circular investigation, which continually revisited the theme of engaging online communities as it was demonstrated in the lives of the subjects. Ultimately, the nature of qualitative inquiry demands that attention is paid to its structural features. Eisner (1998) states that there is no body of codified procedures that will tell someone how to produce a perceptive, insightful, or illuminating study of the educational world. "Unfortunately, or fortunately, in qualitative matters cookbooks ensure nothing (p. 69).

There are, however, parameters that can help to define that a piece of qualitative research is noteworthy, and that it has emerged from mere storytelling to achieve educational significance. He reiterates that it is critical to pay attention to "conviction, aesthetics and context" (Eisner, 1998, p. 30). Eisner concludes by advising the researcher to recognize that the shaping of a research proposal, the conduct of the research itself and its preparation in text form a significantly artistic and aesthetic undertaking. Method and content are in a state of mutual definition. When you have a conviction about what you believe is important to study or how you think it should be studied, my advice is to pursue that conviction. As long as your convictions about your aims and your methods are supportable, your own rationality will provide the deepest source of your security. (1992, p. 29)

Merriam (1998) states that there are four major features that characterize a qualitative study. First, the researcher is interested in understanding the meaning people have constructed. Individual cases in this study focused on the meaning that the subjects have placed on selecting and sharing their weekly Digital Moments. Second, the researcher was the major instrument of data collection and analysis. Third, this qualitative research involved field work, which in this study entailed class recordings and direct/indirect observation. Fourth, this qualitative research used inductive strategies. In this work, the research applied existing models of online learning using TPACK (Mishra & Koehler, 2006) to the subjects in order to broaden our understanding of how engaging online communities have an impact on learning.

Finally, Merriam (1998) believes that the product of a qualitative research study is richly descriptive. This researcher used learners' stories to describe the process of developing meaningful learning and human relationships online. In addition to this, Eisner (1998) concurs that there are several features of qualitative inquiry that make it the methodology of choice for this study. He refers to the unique quality of narrative research by saying, qualitative inquiry places a high premium on the idiosyncratic, on the exploitation of the researcher's unique strengths, rather than on standardization and uniformity. Hence, investigators who study schools or classrooms and who engage in that craft called field work will do things in ways that make sense to them, given the problem in which they are interested, the aptitude they possess and the context in which they work (p. 169).

Narrative writing is particularly appropriate to the study of learning communities, since one's relationship with others can have a significant effect on the learning experience. Eisner (1998) states that "qualitative studies of classrooms, teachers and schools are usually expressed in stories" (p. 189). These narratives must move beyond telling the personal story to telling the research story. As Connelly and Clandinin attest, "the central value of narrative inquiry is its quality as subject matter. Narrative and life go together and so the principal attraction of narrative as method is its capacity to render life experiences, both personal and social, in relevant and meaningful ways" (1990, p. 10).

**Data**

Data was collected in various forms, including you-tube clips, photographs, words, artistic works, paintings, poetry and written reflections. Student comments from course evaluations and from in class focus group discussions resulted in the summary of anecdotal comments included below. These comments reviewed the effects of Digital Moments on the learning process and the sense of community in the class. Data was representative of several subjects, including but not limited to physics, math, music, art, special education, photography, and journal writing.

**Sample Assignments and Links to Data**

Digital Moments Samples:

[http://www.youtube.com/watch?v=RJPLvWATbsA&feature=em-share\\_video\\_user](http://www.youtube.com/watch?v=RJPLvWATbsA&feature=em-share_video_user)

Steve N. - Physics: <http://www.youtube.com/watch?v=s23NGxRAN9Y>

Sylvia B. - Art: [http://www.youtube.com/watch?v=kO\\_iXocqFQw&feature=youtu.be](http://www.youtube.com/watch?v=kO_iXocqFQw&feature=youtu.be)

Kate D. - Avatar/special education: [http://www.youtube.com/watch?v=c\\_gibuFZXZw](http://www.youtube.com/watch?v=c_gibuFZXZw)

Joel C. - Flow state meets digital technology:

<http://www.youtube.com/watch?v=kduOsBKmy2Q>

**Sample Comments and Reactions to Digital Moments:**

It's so emotional
At the beginning I was so nervous and kind of cynical, so I thought "ok here we go" but now I really look forward to finding my own Digital Moment for the week and seeing everyone else's
I loved it!
I never thought I would get to know people online so easily
Doing this every week makes me actually ask myself how I am doing
I like guessing who puts what in their Digital Moment
I just started using this strategy with my own class and they loved it! Grades 5-6 students really opened up and I used it on the smart-board
This is a great way to get students to express how they feel without words
I think it helps to decrease the kind of stereotyping that you can get when you meet people face to face
It's really weird finally meeting classmates face to face and feeling like you already know them super well
When I used it with my own class it really helped me as a teacher to track where the kids were at
It's a safe way to express how you are feeling inside, sometimes I think technology is less personal but this was really personal
I actually shared with my peers, which I usually don't do in face to face settings

I found it interesting that you got to know people's sense of humour, without any real cues like you would get in a f2f environment, like body language
My friends reached out to me on weeks when I was struggling
It levelled the field for me as the teachers did it too, so we could see who they were as people, which made me want to contribute more
Really valuable! Best course I've taken in this degree
One week my Digital Moment was about a family member who had died, but she really had inspired me to go back to school so, it was really good to share it with the group
I am amazed at how well I got to know my colleagues in this class; I've had some awful online experiences and this was a refreshing change

## Analysis

It is critical when defining research to assess weaknesses, limitations or areas of concern. Qualitative methods often do not generate precise, reproducible results (Eisner, 1997). While social scientists need to reduce ambiguity and increase precision, they also need to accept the value of personal judgment when assessing student engagement. The author was also aware of accurately recording individual stories, without gravitating to what Connelly and Clandinin (1990) refer to as “narrative smoothing, what we have called the Hollywood plot where everything works out well in the end” (p. 10). This qualitative study was limited by the sensitivity and integrity of the investigator, due to the fact that the researcher was the primary source of data collection and analysis. Other limitations included issues related to validity, reliability, and generalizability. Connelly and Clandinin concur that a good narrative piece of research can be measured by criteria such as transparency, transferability, and verisimilitude and they state,

like other qualitative methods, narrative relies on criteria other than validity, reliability and generalizability. It is important not to squeeze the language of narrative criteria into a language created for other forms of research. The language and criteria for the conduct of narrative inquiry are under development in the research community. It is currently the case that each inquirer must search for and defend the criteria that best apply to his or her work. (1990, p.7)

Because of the researcher's unique background as a professor of synchronous and asynchronous courses, this study was viewed through the researcher's personal lens of effective online pedagogy. Due to this personal research perspective, some aspects of the study may be considered to approach what Eisner (1998) refers to as “educational connoisseurship; the ability to make fine-grained discrimination among complex and subtle qualities; the art of appreciation” (p. 63). As a result of these difficulties, the final criterion for this methodology was that, as an educational connoisseur in the area of digital teaching, the researcher attended carefully to four dimensions of educational criticism; that is, what Eisner (1998b) refers to as “description, interpretation, evaluation and thematics” (p. 88). Several key themes emerged as critical to the development of interactive and engaging communities.

## Major Themes

### Developing Social Relationships

The use of Digital Moments began to take on a life of its own beyond the scheduled class time. Some students created their own learning communities on Facebook and LinkedIn in order to stay in touch once the course had ended. In addition, Twitter feeds were used to follow each

other and sustain friendships and learning experiences. These extended connections through technology became a web within which students connected on a personal level, a professional level, both emotionally and digitally. This is evidence that “learners are responding to the new technical and social opportunities with little help from the formal education system” and there is “evidence of deep networking and knowledge building in learners’ informal practices” (Littlejohn, Beetham & McGill, 2012, p. 551). Learning that is situated in digital worlds must also have a social component to be effective. Kearney, Shuck, Burden and Aubusson (2012) concur that learning is a social endeavour. They identify three distinct features of mobile or virtual learning that include “authenticity, collaborations and personalisation” (p. 2). They refer to a socio-cultural model for virtual learning and the importance of “enhanced collaboration, access to information and deeper contextualisation of learning” (2012, p. 2).

### **Creativity**

Kaufman (2013) reveals that “school is not simply about tests and ‘checking boxes’ of topics and assignments. Rather, schools today should have a mission of developing students as individuals and igniting their creativity” (p. 79). Students in this project began to unleash the bonds of traditional online courses they had taken, and began to flourish in the freedom of creative practice. Instead of mandating blog postings or required written reflections, students were allowed each week to find their own way, either visually or in words, to describe their learning. Each challenge, each success, became framed by both the personal and professional aspects of their lives, and the learning was constructively shaped by the context of the learner. At the same time, ironically, they began to take more responsibility for their own learning. Being allowed to choose their own Digital Moments to express their learning empowered them to discover the intimate bond between real freedom, self-responsibility and creativity. While many stated they had been indoctrinated by a culture of marks and grades, many reveled in the return to a natural state of learning, one that allowed freedom, innovation and a deeper level of responsibility than many had taken in some time. In previous online courses, the keeper of knowledge had been the instructor. Instead, the expertise of each class member began to take an important place. As roles shifted, the class became a safe place to experiment with new ideas and new technology. While still bound by the university’s requirements for final grades, the importance of this waned as the experience of learning gained greater prominence. This reciprocal relationship between grades and actual learning will be explored in future work. No longer bound by the fear of the end result, creative thinking allowed for divergent paths, decided and determined by the learner in conjunction with the instructor. It took courage on the parts of both instructor and learners, but once out of their educational cage, together they embraced the wide open fields of knowledge in the digital world.

### **Teacher- Learner-Teacher Role Shifts**

During the course, the roles in this professional learning community became almost indecipherable. While still within the university context, the instructor fulfilled the responsibility to assign grades to students. But in the learning environment, the power differential became almost invisible. The students with expertise in particular technologies took on the role of instructor, the teacher became the learner, thus empowering learners with the confidence to take risks, make mistakes, and ask for help. This supports the notion that 21C learners must be able to think critically, be problem-solvers and work collaboratively. In particular, for 21C learners in a virtual classroom, they must be able to go beyond the class and use their digital literacy within the context where they work and live. “It is obvious that not only learners, but also teachers need

to acquire 21st century competencies as well as become competent in supporting 21st century learning” (Voogt, Erstad, Dede & Mishra, 2013, p. 408). In order to create authentic learning and assessment tools, teachers need to learn how to design such tasks. McNeill, Gosper and Xu (2012) surveyed academics and found that many continued to target lower order learning outcomes. They state that

universities increasingly value the skills such as problem-solving, critical thinking and creativity, yet the curriculum needs to be designed to support and scaffold development of these skills, and integrating them into assessment strategies has proven a challenge. While new technologies have sometimes been heralded as having the potential to address an apparent gap between the rhetoric of curriculum alignment and assessment practice in universities, academic practice is slow to change, and the uptake of new tools to support the development of higher order skills remains relatively low. (McNeill, Gosper & Xu, 2012, p. 283)

This research argues that if Digital Moments can be used to create learning environments that support academics to learn new skills, then they may create more relevant 21C learning outcomes for their own students. In the digital world, it is imperative that teachers, regardless of academic standing, continually redefine themselves as life-long learners and model this for their students.

### **De-valuing and Re-valuing**

The implementation and acceptance of arts-based and creative pedagogical tools meant a significant ‘unlearning’ and ‘revaluing’ of what it means to demonstrate one’s knowledge. It became important to unpack how each learner had developed their values about the importance or lack of importance of marks and grades versus the value of the learning process itself. Students began to see how the development of friendships and simple human qualities like trust, caring and compassion were the real foundation for creating meaningful learning experiences. It also helped them to begin to trust themselves; they began to believe there was an authentic self in each learner who could choose which direction to go, which tasks were personally and professionally relevant, and which were best left to others. The level of passion and interest became more important than the grade, and this represented a significant shift in values. As Kaufman (2013) states “development of these skills is purposefully integrated within core content areas in ways that help students find relevancy in their work, a characteristic central to motivation and learning” (p. 79). Contrary to traditional educational frameworks, wherein the power is centered in the instructor or the institution, this model required a re-valuing of where the fundamental responsibility for learning resides - within the learner.

### **Conclusion**

The journey to developing an engaging online community has been chronicled in this paper. But the outcome of the struggle still must be student success. At the end of this course, students produced original work, combining their creative skills and unique talents with the appropriate piece of technology to demonstrate they had mastered the concepts. One student constructively used her life experiences in travelling, her photographic arts and her background in art to assemble a video which was truly inspiring. Her ability to use the technology as a vehicle through which she could express her learning, her way, is the best barometer of success a teacher can have. Another student, with seven years of teaching experience and new to the program, expressed distaste for and a lack of comfort using written text. He integrated the

literature on the course to a video which is a model of alternative means of assessing students in digital environments. While a few of the students produced assignments with traditional modes (written work), the predominant feature was that once one student had done something original, the others wanted to learn how to do it. Students taught students; they taught their instructor. As a teacher, the barometers for an engaging class in a face-to-face environment were not that different than online: the creation of supportive meaningful learning experiences; human interaction and sharing of the vital emotional components of learning; valuing and cherishing our mistakes and the important learning that emerges therein; and finally, the best of all, wanting to come back for more. Upon reflection, the author recalls early trepidation about teaching online, having had some cynicism and certainty that the online community could not, and would not, replace a face-to-face classroom. Despite those early impressions, it is clear that creating meaningful, interactive online communities is both essential and possible.

While technology is a wonderful tool, it is the author's belief that the use of Digital Moments can be an effective strategy for developing engaging authentic communities in an online learning environment. The relationship between teacher and student is an important element in all learning that cannot easily be replaced with high tech tools. Whether the instructor chooses Twitter, Ning, Wikis or Blogs, the development of an engaging learning community remains a key component to successful online learning. By embracing this journey and telling our stories through our Digital Moments, we share emotion and empathy; it serves to remind us that when working with technology or beginning something new one can feel both intense frustration as well as sheer exultation. It is not the piece of technology itself which produces this reaction, it is our human response to it. Likewise, when a tale is told it is generally not done without involving emotion, thus exposing the teacher and learners in ways not found in other pedagogical approaches.

Best practices in digital pedagogy require us to be advocates for creative expression, multi-modal learning, and the inclusion of alternative forms of assessment. Besides the large body of research attesting to the merits of a more creative approach to learning, this approach also nurtures multiple intelligences and allows the more timid or those left behind to ultimately find their voice. Moreover, there are some things that just cannot be articulated through text, and words cannot always convey what students wish to say. So perhaps it is time to not only transform one's practice, but to also transform academia's shades of grey with a little splash of colour.

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## **Sociocultural Implications on the Learning of Youth with Concurrent Disorders: Factors That Are perceived as Necessary for Student Success in Mainstream Classrooms**

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**Abstract:** *Research indicates that a significant proportion of adolescent students have a concurrent disorder that is significant enough to cause social or educational impairment. Thus the potential consequences of this condition on students as they progress through adolescence cannot be denied. The present study explored the factors perceived by teachers, administrators, and psychologists to be important in helping this population of students to achieve academic and social success in a mainstream classroom. The results of this study indicate that the number of adolescent students exhibiting symptoms of a concurrent disorder within the secondary school environment has increased in recent years. While a small number of students will need to access community services, many will remain within the classroom. There is a general consensus for a need for empirically-based classroom strategies, although there is a noticeable lack of consistency and confidence regarding the details and implementation of such strategies.*

**Keywords:** Concurrent disorders; adolescents; teachers; perceptions; student success; mainstream classroom

### **Introduction**

Research shows that 35-50% of individuals have concurrent mental health and substance abuse problems (Salvo et al., 2012; Rush, 2002). Moreover, 60% of youths who are substance abusers also have a comorbid mental health disorder (Armstrong & Costello, 2002). At the high school level in particular, some students experiment with illicit substances. It is important to realize that in some cases, drug use can be a symptom of a larger problem, and these two disorders co-occur in a number of individuals.

The term “concurrent disorder” is given to an individual that is experiencing any combination of “mental/emotional/psychiatric problems with the abuse of alcohol and/or another psychoactive drug” (Rush, 2002, p. v). Concurrent disorders are varied: any mental health problem can coincide with the abuse of any substance. Therefore, these individuals will demonstrate varied symptoms (often reflective of either component condition).

Although they can occur at any age, the natural onset of many mental illnesses occurs during late adolescence. Further, the majority of adolescents have used drugs or alcohol, with the median age at onset for both alcohol and drug abuse being 14 years (Swendsen et al., 2012). When a substance abuse disorder begins in adolescence, students are at an increased risk of developing additional dependencies, disruptive behaviour, and depression (Chan, Dennis, & Funk, 2008). Consequently, concurrent disorders are present in the population of high school students, and it is important that educators are cognizant of their presence.

As educators, it is imperative that we are able to help all students reach their potential, including those that face the added difficulty of a concurrent disorder. We must be willing and able to help students with concurrent disorders overcome obstacles in order to achieve success in school.

The purpose of this study is to investigate the personal, social and situational factors that are perceived to increase the success of adolescent students with concurrent disorders in mainstream classrooms. The study addresses the following clusters of questions:

1. From a teacher's perspective, what strategies implemented within the classroom are effective for an adolescent student with a concurrent disorder in a mainstream classroom? What factors does a teacher perceive as being helpful for these students to achieve academic success (defined as achieving a passing grade in classes), and social success (defined as interacting appropriately with peers)?
2. From an administrator's perspective, what institutional plans are successful in supporting students with concurrent disorders when they study in a mainstream school?
3. From a psychologist's perspective, what personal factors help an adolescent student with a concurrent disorder achieve success in school (viewed objectively by the psychologist, including academic and social success)?

### **Theoretical Framework**

Three theoretical constructs weave through the fabric of the literature review and the analysis of the data. These theories influence the perceptions of the participants in the research:

1. Social learning theory (Bandura, 1977)
2. Social cognitive theory (Bandura, 1986, 2001)
3. Social representation theory (Moscovici, 1984, 2000)

### **Social Learning Theory**

According to Bandura (1977), social learning theory is based on the principle that learning occurs through observation and modeling of behaviour. By this theory, individuals learn by acquiring symbolic representations of the modeled activities and not by stimulus-response interactions. The theory stresses the importance of observing and modeling the behaviours, attitudes and emotional reactions of others because people learn from one another in a social context (Akers, 2009).

### **Social Cognitive Theory**

Social cognitive theory arose from Bandura's social learning theory and was posited by Bandura in 1977. It provides a framework for understanding, predicting, and changing human behaviour. The theory identifies human behaviour as an interaction of personal factors, behaviour, and the environment (Bandura 1977; 1986; 1991).

According to Jones (1989), behaviour varies from situation to situation. That is, individuals may interpret situations differently provoking differing responses from different people, or different responses at different times. Thus, social cognitive theory is useful in identifying methods in which individual and group behaviour can be changed.

## Social Representation Theory

Moscovici first defined social representation in 1973 as ... a system of values, ideas and practices with a twofold function: first, to establish an order which will enable individuals to orientate themselves in their material and social work and to master it: and secondly to enable communication to take place among members of a community by providing them with a code for social exchange and a code for naming and classifying unambiguously the various aspects of their world and their individual group history. (p. xiii)

By 2000, Moscovici further identified social representation from “the dynamic point of view as a network of ideas, metaphors and images, more or less loosely tied together” (p.153). These representations are not always logical nor are they coherent thought patterns; instead, they may be thought fragments or contradictory ideas. Therefore, everyday thinking may be different, sometimes opposite, forms of thinking.

This theoretical framework connecting social learning, social cognitive and social representation theories will guide the literature review, the research questions, and the data analysis. Figure 1 shows the conceptual framework of the relationship between the theories and the potential effects of concurrent disorders on the academic and social success of adolescents.

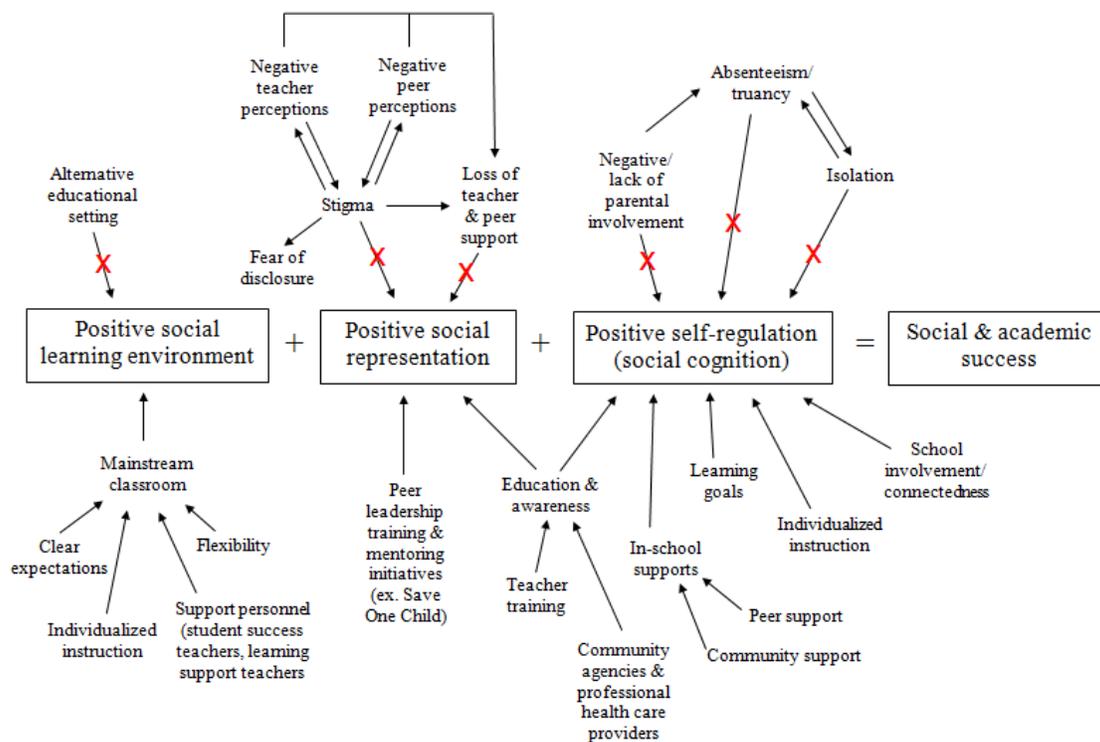


Figure 1: A conceptual framework of the relationship between social learning theory, social cognitive theory, and social representation theory and social and academic success of students with concurrent disorders.

## **Literature Review**

### **Concurrent Disorders**

According to Health Canada, concurrent disorder is the diagnosis given to an individual who is experiencing a mental illness and substance abuse problem simultaneously (Rush, 2002). It is important to note that concurrent disorders are extremely varied in their manifestations. Since any mental health problem can coincide with the abuse of any substance, the symptoms may reflect elements of each disorder individually, as well as novel symptoms that appear due to their interaction.

Concurrent disorders occur with high frequency. Kutcher, Venn, and Szumilas (2009) note that in Canada, “approximately 15 to 20 percent of children and adolescents suffer from some form of mental disorder – one in five students in the average classroom.” (p. 44). Research from Health Canada shows that 40-70% of individuals have concurrent mental health and substance abuse problems (Rush, 2002). Armstrong and Costello (2002) report that 60% of youths who are substance abusers also have a comorbid mental health disorder; conduct disorder and oppositional defiant disorder were most common, followed by depression. DeMilio (1989) verifies this association. Earlier research including adolescents and adults reveals that over 28% have a concurrent disorder (Kessler et al., 1996).

### **Factors that Promote Student Success in Secondary School**

Parental involvement plays an important role in a student’s academic achievement throughout an individual’s school years (Topor, Keane, Shelton, & Calkins, 2010; Fan & Williams, 2010). However, the involvement may take on different forms as an adolescent enters and progresses through secondary school. Research suggests that during adolescence, parental involvement is most beneficial to academic achievement when parents communicate expectations clearly and help students develop strategies to effectively succeed in the school environment (Hill & Tyson, 2009), although other forms of involvement also show favourable results. The positive influence of parental involvement is also evident when other factors, such as social background, family structure, and academic capabilities, are controlled (Catsambis, 2001). Therefore, for a population of students with concurrent disorders to achieve success, parents or caregivers must make the effort to work with the student’s teachers and administrators to promote and support this success.

Research shows that supportive relationships with teachers contribute meaningfully to academic success (Bernstein-Yamashiro & Noam, 2013a). Students who perceive a connection with their teachers are more likely to attend class, and to be engaged in the lessons. The natural consequence of this connection is improved academic performance. Further, positive student-teacher relationships foster socio-emotional success in students (Bernstein-Yamashiro & Noam, 2013b). While fostering student-teacher relationships is easiest in small class settings, it is possible, and important, to ensure that students feel accepted in all school environments.

Teachers can also promote success for students with concurrent disorders by creating a positive learning climate within the classroom (Johnson, Eva, Johnson, & Walker, 2011). It is beneficial to all students, including those with concurrent disorders that teachers maintain high standards of academics and behaviour, but to be clear and explicit with the expectations for the

students. Classroom routines should be consistent, although some flexibility regarding assignments is beneficial in situations when a student's symptoms intensify.

Finally, a student's connectedness to his/her school positively predicts academic success (Osterman, 2000; Shochet, Dadds, Ham, & Montague, 2006). The success is attributed to increased academic motivation, in connection with positive attitudes towards school and greater feelings of self-esteem. In contrast, students with a low perceived connectedness with their school are more likely to experience difficulty with their social relationships, both with their peers and with their families. Further, students with a connection to their school community are less likely to participate in risky behaviour, including substance abuse (Maddox & Prinz, 2003).

## **Stigma**

Stigma occurs when an individual is stereotyped or alienated because he/she is viewed as being different from society's norm (Ilic et al., 2013; Corrigan, 2004). Mental illness carries a stigma that is not associated with other, physiological, illnesses. People who suffer from a concurrent disorder may experience bias because of their mental illness, but also because of their substance abuse problem. These individuals may have to deal with stigmatizing judgments on a daily basis; adolescents may face this stigma within the school environment.

## **Negative Effects of Stigma**

People who suffer from mental health and substance abuse problems will often want to conceal their issues and illness for fear of the opinions of others. This often means that these individuals will forgo treatment in order to keep their disorder a secret and avoid the accompanying stigma (Corrigan, 2004).

Individuals with mental illness experience discrimination in various facets of life. Lyons, Hopley, and Horrocks, (2009) note that individuals disclosing mental illness faced difficulty finding gainful employment, a finding which is supported by other researchers (Pescosolido et al., 2010).

Further, individuals with mental illness, including those with concurrent disorders, often experience social isolation. Lyons, Hopley, and Horrocks, (2009) note that individuals with mental illness experience discrimination from their communities, as well as from family members. Consequently, in an effort to avoid discrimination, people who suffer from mental illness, addiction or a concurrent disorder will sometimes choose to isolate themselves. This leads to further reduction of a person's social support network – an essential component to recovery and a balanced life (Markowitz, 1998).

## **Methodology**

### **Research Approach**

This study follows a phenomenological approach to qualitative research. The purpose of this research method is to uncover specific phenomena through examining the perceptions of those involved (Lester, 1999). Creswell (2007) notes that studying lived experiences will expose "contexts or situations that [affect or influence the individuals'] experiences of the phenomenon" (Creswell, 2007, p. 61).

This study examines the phenomenon of working with students with concurrent disorders. Through the perspectives of teachers, administrators, and psychologists who have worked closely with this population of students, the factors needed for these students to achieve success in a traditional classroom setting are exposed.

### **Participants**

This study involved eight participants stemming from three subgroups: secondary teachers (grades 9-12), administrators working within secondary schools or with secondary school populations, and psychologists who work with adolescents aged 13 and older. Creswell (2007) cites Dukes' (1984) recommendation of a sample size of three to ten subjects for a phenomenological study.

To personalize the research, an online random name generator was used to generate pseudonyms for the participants (<http://random-name-generator.info/>).

Secondary teachers from a public school board in a city in Southwestern Ontario were sent a single email inviting them to participate in a research study involving students with concurrent disorders. Eight individuals responded to this invitation, of which three teachers were randomly selected (by choosing names from a hat) to participate.

Administrators were similarly contacted via email invitation to participate in the research. Only two individuals responded to the initial invitation, and were consequently selected as participants.

This study takes place in an area that is underserved by psychologists trained and experienced with working with youth. Consequently, it was necessary to purposively select participants within in the psychologist subgroup. Individuals were selected based on their professional experience working with adolescents (aged 13 to 19) in an educational setting, either at the high school or university level. Three psychologists were invited to participate, but only two responded to the request.

Subsequent to initial contact, all participants self-identified as having experience working with students with concurrent disorders, either in current teaching educational settings or in past experiences.

### **Data Collection**

For this study, participants were interviewed using a semi-structured interview technique. In addition to questions designed to elicit the unique perspective of each participant group, each interviewee was asked their perspectives on the roles of the other participant groups.

Interviews were arranged through email contact, and occurred in March and April 2013 with time and location selected by the participants. Interviews ranged in length from 40 to 60 minutes.

## **Data Analysis**

Following careful reading and rereading of transcripts, codes were attached to phrases and sentences of the data. The codes were then used to link the data to other ideas, and to facilitate interpretation.

The categories were analyzed for recurring themes regarding the participants' perspectives of essential strategies for student success using the constant comparison method (Thorne, 2000). In this strategy, individual pieces of data (such as particular statements or themes) were compared "with all others that may be similar or different in order to develop conceptualizations of the possible relations between [them]" (Thorne, 2000, p. 69). Further as suggested by Miles and Huberman (1994), a provisional 'start list' was developed from the conceptual framework, analysis of the literature, research questions and key variables addressed in the literature.

## **Results**

### **Disclosure/Stigma**

Kutcher et al. (2009) find that "approximately 15 to 20 percent of children and adolescents suffer from some form of mental disorder" – one in five students in the mainstream classroom (p. 44).

Marlene Cushman, a teacher in her 40s currently works as a Student Success Teacher<sup>1</sup>. She acknowledges, "I'm more knowledgeable of some of the mental health issues of students because of my role and that's not always made aware to the classroom teacher."

Students are often reluctant to share information with teachers. Lynn Faraci, a teacher in her 30s, spoke of the stigma impacting disclosure of mental illness: "He's reluctant to share with me specifics because I think it's the stigma that still comes along with having mental illness, more so than the addictions."

According to the Canadian Mental Health Association in Ontario (<http://ontario.cmha.ca/mental-health/mental-health-conditions/stigma-and-discrimination>), individuals with a mental illness are faced with "multiple, intersecting layers of discrimination as a result of their mental illness and their identity" (para. 2). There are great consequences to the social representation (Moscovini, 2000) of people with mental illness. They are depicted as dangerous, violent and unpredictable. Due to the stigma associated with the illness, youth have found that they lose their self-esteem and have difficulty making friends. The stigma may be so pervasive that these youth refuse to seek help.

Consequently, there is a need for information disclosure and understanding as a way to combat the stigma associated with mental illness and drug abuse. Dr. Christine Bibeau, PhD, a superintendant with the school board, comments about the difficulty of implementing strategies

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<sup>1</sup> Student Success Teacher: teacher assigned by principal to develop positive relationships exclusively with students who are struggling or who need extra attention to help them graduate; monitoring attendance, developing work and study skills; working with teachers on strategies for student improvement; working with teachers to create behaviours/improvement plans for student...providing the necessary supports so that every student has the potential for academic and personal success. (Toronto District School Board).

to help students without being aware of their individual needs: “if they’ve already said ‘no, I’m not going to disclose to the school,’ it makes it really tough for us.”

From a professional perspective, psychologists stress that the onus is on the student to advocate for themselves through disclosure. Dr. Adam Eckler, PhD, a psychologist working in a University Student Counselling Centre says,

By law, they don’t have to say anything, they can just say “here are my accommodations, period”. But usually, when you foster dialogue with professors, when you promote understanding about what’s going on with you, you build in flexibility.

Social learning theory (Bandura, 1977) posits that an individual’s behaviour is learned through observation of the consequences experienced by others in similar situations. The choice to not disclose, then, is influenced by witnessing the stigma faced by other students.

The educators interviewed, both teachers and administrators, overwhelmingly cited the lack of disclosure as a significant barrier to establishing the necessary accommodations for success in the classroom. As Teresa Wayne, an administrator in an urban school, ponders, “how do you save them all when you don’t know who all of them are?”

### **Academic Success Strategies**

The Ontario Ministry of Education sets the requirements for graduation. To successfully complete secondary school and receive the Ontario Secondary School Diploma [OSSD], a number of fixed criteria must be met (<http://www.edu.gov.on.ca/extra/eng/ppm/graduate.html>). Consequently, there was a general consensus among the teachers and all other participants in the program that the expectations for academic success are the same as those for students in the mainstream. As Greg Sotelo, an administrator of a suburban high school, states that academic success is “achieving a credit.”

The ultimate goal, it follows, is to encourage students to attend a mainstream classroom setting, a view echoed by Nora Hirst, a school psychologist, who oversees both elementary and secondary schools. Following treatment, it’s “very likely” that students will return to their regular classrooms. She explains, “We work very hard to reintegrate students back into the classroom.”

When students are in a positive classroom environment, Bandura’s social learning theory (1977) posits that all students will be able to capitalize on the constructive socializing effects of peers and teachers. Further, this placement should help a student to increase pro-social behaviour by providing a safe environment in which modelling and reinforcement can be provided.

Research suggests that maintaining clear expectations, while providing the flexibility needed to successfully complete course requirements, is helpful for students with mental illness to achieve academic success (Johnson, Eva, Johnson & Walker, 2011). When asked about other strategies that she thought would be helpful, Ms. Cushman reiterated the importance of “being really explicit, really explicit with the student in terms of what the expectations is.” The teachers in this study, however, had difficulty coming up with additional strategies that could be used to support this population of students.

Overall, all interviewees expressed a desire to help all students achieve academic success despite the inconsistencies in suggestions for implementation. Thus, while some strategies are being implemented to assist students with concurrent disorders to achieve academic success, there is a noticeable lack of direction about specific strategies that can be used within the classroom.

### **Individualized Attention**

The appearance of a concurrent disorder varies from student to student, and the factors that will affect his/her success will also differ. Harre (1984) notes that “social representations are not *social* in the sense of belonging to the group, they are *individual* representations, each of which is similar to every one of the rest” (p. 930). However, individual students are not like all the rest. Dr. Eckler, familiar with the non-uniform appearance of students with concurrent disorders advises:

From my perspective, and maybe this is the bias of talking to a psychologist, is that it really has to be individualized. So accommodations – you can’t have blankets – I don’t think there is a blanket accommodation for students with concurrent disorders. What’s going to work for John isn’t going to necessarily work for Mary. So you really have to see what’s going on with the person.

Ontario’s Ministry of Education has a policy regarding differentiated instruction for all students, recognizing that students have different strengths and needs, and that all students are entitled to an opportunity to demonstrate their learning and achieve success (Ontario Ministry of Education, 2010). By “offering [the] student a learning experience that responds to his or her individual needs,” (Ontario Ministry of Education, 2010, p. 146), students with concurrent disorders are simultaneously able to assimilate and modify the social representations assigned to them (Höijer, 2011).

It is important to realize that students, whether or not they are affected by a concurrent disorder, have unique abilities and enter the classroom with their own unique histories. Bandura’s social cognitive theory (1991) acknowledges that an individual’s behaviour is an interaction of personal factors, behaviour, and the environment. Consequently, when addressing such behaviour in the classroom, a teacher must consider each student’s individual needs. As Dr. Bibeau challenges, it is the responsibility of the teacher “to teach the whole child.”

### **Teacher-Student Relationship**

DeWit, Karioja, Rye and Shain (2011) found that emotional support from classmates and teachers is a powerful protective factor in preventing or reducing student mental health problems. Social comparison theory (Festinger, 1954) or social representation theory (Moscovini, 2000) explain student perceptions of the loss of classmate and teacher support in the transition from elementary to secondary school may increase mental health problems occurring in the transition from elementary (middle) school to high schools (DeWitt et al., 2011).

This theory is supported by Ms. Wayne’s belief that it is “the caring adult; that’s what it comes down to.” As she reflected on a comment by one of her teachers, “you know, we don’t know the student’s stories, we don’t know what they come with” she addressed an unspoken thought that “you should know what they come with. If you don’t know anything about the

student, [how can you teach him or her]?” The mission of the school board involved in this research confirms that teachers need to teach the whole child and help them reach their full potential academically, emotionally and socially.

So how do we address the gap between expectations as per mission statement and priority goals and what really happens between secondary school teachers and their students? DeWit et. al.'s (2011) findings of strong correlations between declining teacher support and diminishing mental health suggest that teachers play a significant role in the prevention of student mental illness and that all stakeholders implement policy on improving the quality of the interpersonal relationships between high school students and their teachers.

Research shows that a positive student-teacher relationship plays a significant role in helping students achieve academic success in the classroom (Bernstein-Yamashiro & Noam, 2013a; b). Further, this relationship enables the modeling of socially-acceptable behaviours that students with concurrent disorders often find challenging (Bandura, 1977). However, there is a lack of accountability in this area of teaching; while the task of meeting curricular expectations is measurable, the student-teacher relationship remains unmonitored. As Dr. Bibeau astutely notes, “if a kid is hearing voices, and they’re sitting there, they’re not going to be learning math, or social science, or whatever,” and it is up to the observant, compassionate teacher to notice the change in the student, and to initiate dialogue.

### **Awareness and Knowledge, More Professional Support**

A consistent theme permeating the answers of all interviews was the need for education, both for students and for the adults that work with them. Research supports the role of information in reducing the stigma associated with mental illness (Atkins, Hoagwood, Kutash, & Seidman, 2010), but there is little consensus on the optimal way to integrate mental health awareness into the curriculum or into extra-curricular programs. Mr. Sotelo recalled that “when we can, bring outside people from the community to talk to the students” about mental health. However, Dr. Eckler proposes that “it’s got to be – I think the stuff that is most effective is done by students, for students.” By acquiring information from peers, students have the potential to gain unbiased, accepting models of behaviour, supported by social learning. Research suggests that peer learning has positive effects on student achievement while helping students practice various skills that are needed for future employment (Riese, Samara, & Lillejord, 2012), and Reinke, Stormont, Herman, Puri, and Goel (2011) note that school-based prevention programs effectively reduce the negative impact on learning and social development associated with mental health programs. Thus, there is a significant connection between mental health education for students and positive effects on academic and social performance.

The teachers and administrators interviewed, though, overwhelmingly expressed a desire for more strategies to help students with concurrent disorders within their domain of responsibilities. Teachers such as Ms. Cushman noticed the lack of classroom strategies for students with mental illness and wished for more information about tactics that would help them succeed.

It would be great if there were strategies for helping students socially and saying, “here are three things that you can do in your classroom to support your student socially.” Great! I will try those things! Some may work for me, some may work for that student. That’s what I would like. Ideally.

Administrators also noted the need to help teachers further their own knowledge, enrich their teaching practice, and implement strategies to help students with concurrent disorders achieve success in the classroom. As Ms. Wayne noted:

I think part of that is training. So how can we find other ways that staff can become more knowledgeable about it so that we as administrators are... confident in knowing what [teachers] should do, where you go to next, what's the next plan

In a study by Reinke, Stormont, Herman, Puri, and Goel (2011), 75% of teachers surveyed acknowledged teaching a student with a mental health problem, and believed that schools have a responsibility to support the mental health of their students. However, only 34% of teachers felt that they had the necessary skills to support this population of students. When a mental health awareness training program is implemented, however, teachers' knowledge about the illnesses increases, stigma is reduced, and teachers feel more confident in their ability to provide help for their students (Jorm, Kitchener, Sawyer, Scales, & Cvetkovski, 2010). Clearly, there is a need to educate the educators in this situation. \

### Parental Involvement

The importance of involving families is being recognized as a best practice in providing quality services to youth with mental illness (Chovil, 2009). All participants in the research affirmed the need for parental involvement when providing the best directions for youth with concurrent disorders. Ms. Doering was frustrated with the lack of response from a parent with a struggling teen in her class that is experiencing a concurrent disorder: "They've washed their hands of it. Her parents – we did communicate several times – nothing has come of it." Frustrations with parental support appear to impact teachers' efficacy to help the student both academically and socially.

From Ms. Wayne's perspective, it is important to engage all parents: "We need to do more with families and sometimes the families just don't know where to go." Affirming Tannebaum's (2005) statement describing parents as the central dimension, Dr. Bibeau suggests, "parents are the ones that are going to drive where treatment is available," and "because school is not 24/7 and school counseling is not available during the holidays or in the summer between June 28 and September 3", students need a consistent level of involvement to become mentally healthy.

Family engagement is a "huge" piece of the mental health issue. According to Chovil (2009), "there is more than sufficient evidence that demonstrates the necessity to engage with families...as families, children and youth are intrinsically woven together, as are their mental health needs." (p. 32).

### Alternative Settings

While acknowledging the need for preventative measures and strategies, a few students can best be served by participating in programs that meet their needs outside of a traditional classroom. Many interviewees, including Ms. Wayne, acknowledged the importance of community resources: "So I think part of [a student's success] is having an opportunity for home instruction for students that need it. I think having the agency schools...as a partner is really important for students." In some situations, these agency schools provide the only environment

in which a student can succeed. However, without the opportunity to interact with a larger number of individuals, both adults and peers, students miss the potential learning experience that arises from this social situation; their behaviour cannot be shaped by the traditional secondary school environment unless additional accommodations can be made.

Research suggests that school connectedness serves as a predictor of future mental health problems (Shochet, Dadds, Ham & Montague, 2006), therefore striving to meet the needs of all students, including those with concurrent disorders, within the traditional classroom should be a priority within schools.

## **Discussion**

Findings from this research indicate that teachers, administrators, and psychologists are aware of students with concurrent disorders within the mainstream secondary school population, and have experience working with this population of students. There is general consensus that the number of adolescent students exhibiting symptoms of a concurrent disorder within the secondary school environment has increased in recent years, and that these students have special needs that may or may not be met successfully within the classroom, however there is no clear consensus about strategies or factors that can help increase the success of this population of students.

Stigma and discrimination represent major barriers to reaching goals that individuals with mental illness may set for themselves (Canadian Mental Health Association, <http://ontario.cmha.ca/mental-health/mental-health-conditions/stigma-and-discrimination/>). Social representation theory (Moscovici, 1984; 2000) posits that individuals create a system of naming and classifying various aspects of their world in order to make sense of them. Consequently, negative stereotypes arise from the fear of the unknown – from the classification of individuals with mental illness as “different.” From the results of this study, it is evident that stigma within the schools prevents students from disclosing their needs to teachers and administrators, thereby denying themselves access to resources and services that may increase their potential for success.

Further, while there is agreement among all participants that strategies should be implemented within the classroom, and other initiatives should be taken within the school, there is a definite lack of information regarding the type of intervention that should be followed. Some strategies used by the teachers interviewed in this study are supported by empirical evidence, such as the consistent application of clear expectations, while providing the flexibility needed to successfully complete course requirements, and is helpful for students with mental illness to achieve academic success (Johnson, Eva, Johnson & Walker, 2011). However, the fact that teachers were unable to name other, varying strategies, reflects the need for additional training in this area. Descriptions of effective strategies must be consolidated and shared among educators.

Teachers felt comfortable implementing strategies of differentiated instruction, being familiar with this policy set forth by the Ontario Ministry of Education (2010). The concept of individualizing instruction is supported by Bandura’s social cognitive theory (1991), as the student’s outward behaviour will reflect the interaction of his/her personal factors with the classroom environment. Consequently, if the classroom environment can be altered through specific teaching strategies or the personal factors modified through appropriate treatment for the

concurrent disorder, appropriate behaviour (including academic and social success) can follow suit.

Further training and education is required for teachers to gain confidence in their ability to help students with concurrent disorders achieve success in the classroom. Research confirms that, while students with concurrent disorders are present in mainstream classes in significant number, teachers lack confidence in their ability to effectively teach this population of students (Reinke, Stormont, Herman, Puri, & Goel, 2011; Jorm, Kitchener, Sawyer, Scales, & Cvetkovski, 2010). It is important, but not enough, to simply provide teachers with a list of classroom strategies to use with students with concurrent disorders. School-wide support, including the need for interventions or programs targeting stigma reduction, is required for social misrepresentations to be eliminated, and for students with concurrent disorders to feel fully included in the school environment.

In order for any classroom interventions to be effective, teachers must first establish significant, positive relationships with their students. Research shows that the student-teacher relationship plays a significant role in helping students achieve academic success in the classroom (Bernstein-Yamashiro & Noam, 2013a; b), and the social learning theory (Bandura, 1977) supports the development of social skills through the modelling and practice of these skills with, or under the supervision of, a caring adult. Participants unanimously agreed that teachers have the unique opportunity to know students both on an academic and extracurricular basis, and this relationship enables them to identify early warning signs of concurrent disorder within their students.

Other relationships are also important for both academic and social success in secondary school. Research undeniably supports the association between family engagement in the school with academic success (Bernstein-Yamashiro & Noam, 2013a, 2013b; Tannebaum, 2005; Chovil, 2009). The results of this study confirm this association, with participants reflecting both on positive instances, as well as cases that were complicated by a lack of family support.

Thus, the factors that affect the academic and social success of adolescent students with concurrent disorders are numerous and complicated. Striving to meet the needs of all students, including those with concurrent disorders, within the traditional classroom should be a priority within schools.

## **Implications**

This study adds to the research concerning the education of adolescents with concurrent disorders. The findings of this study indicate a gap between evidence-based practices emerging in the literature, and the familiarity of teachers with strategies to encourage student success within a population of students with concurrent disorders. While there is a desire on the part of teachers for increased education, there is limited availability of resources that can be accessed from governing bodies. There is a need for practical, classroom-based strategies that encourage inclusion of all students. Future research gathering evidence-based strategies that promote the success of students with concurrent disorders should include the use of teacher focus groups to facilitate idea-sharing and dialogue regarding the practicality and/or effectiveness of suggested strategies.

It is important that educators – both teachers and administrators – receive formal professional training with respect to concurrent disorders. In order to ensure that misconceptions and inaccurate social representations are not propagated, training should be led by professionals. Psychologists from community agencies, familiar with the needs of adolescents with concurrent disorders, are the most appropriate facilitators of such teacher training. Ideally, training in mental health should be a requirement of the teacher education program; if new teachers are expected to meet the needs of all students in the classroom, it is imperative that they have the appropriate foundation of knowledge to do so.

Further, the importance of the teacher-student relationship, supported by empirical evidence, is noted but unmeasured. Additional research into factors or qualities affecting this relationship, both positively and negatively, would serve to qualify (and/or quantify) this critical component of student success. Such research could also have implications for teacher education programs, which stress the academic (curriculum) piece of teaching, while deemphasizing the humanistic (social) piece of teaching. In an ideal educational setting, smaller classes would help teachers develop more meaningful relationships with their students.

Last, this study suggests a top-down model for the development and implementation of classroom strategies to help students with concurrent disorders to achieve success (i.e. the strategies would be prepared as guiding policy from the school board). Further research should compare this approach with a bottom-up strategy, whereby students with concurrent disorders, working with peers or their teachers, identify their unique needs and co-create a strategy that could be used in the classroom.

### **Limitations**

Although care was taken to maximize the validity of the study through triangulation of the participants' perceptions, as well as data analysis, the small sample size of this study is a notable limitation. Further research is needed to assess whether the themes that emerged from this study are applicable to a larger sample of participants, and to build upon, or create additional, themes regarding the factors affecting success for students with concurrent disorders.

Further, it is beyond the realistic scope of this research study to interview students with concurrent disorders about their personal experiences. It was also impossible to address the perspective of the parent/guardian within the framework of this study, although it would be important to investigate this area in future research. Subsequent research would be required to obtain data from these populations.

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## Exploring the Relevance of Financial Literacy Education in a First Nation Community

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**Abstract:** *The relevance of financial literacy education (FLE) in a remote Canadian First Nation community was explored after a generic FLE workshop failed to gain traction. To understand the relevance of FLE in the Community, group interviews, a Community Summit and field notes were used as sources of evidence. During the analysis phase practice theory was used to examine the 'sayings', 'doings' and 'relatings' in a financial context. Next, we examined the possibilities of what can be achieved in the Community and find that site based and Community developed FLE was desired. Reported in this paper are the planning and initiating stages of site based education that occurred.*

**Keywords:** Indigenous, financial literacy education

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### Introduction

In this paper the relevance of financial literacy education (FLE) in a remote Canadian First Nation community (hereafter the Community) was explored. This took place approximately one year after a generic FLE workshop failed to gain traction. To better understand the relevance of FLE in the Community group interviews were conducted and a presentation at a Community Summit was delivered. Identified during group interviews and in a brief survey following the presentation (mentioned above), was an expressed interest in collaboratively developing FLE workshops/resources. After analysing the sources of evidence the remainder of this paper focuses on what site based education can offer to financial literacy education (FLE) practices during the planning and initiating stages of development.

Financial literacy can be defined as "...a combination of financial awareness, knowledge, skills, attitudes and behaviours necessary to make sound financial decisions and ultimately achieve individual financial wellbeing" (Atkinson & Messy, 2012, p.2). From this definition, financial literacy education (FLE) has been previously said to be education that focuses on increasing an individual's financial literacy through the acquisition of personal financial knowledge (Blue, Grootenboer & Brimble, 2014). Increasing financial literacy levels is of global concern with FLE strategies being implemented around the globe including in the curriculum for most primary and high school children (OECD, 2013). It remains a topical research area and we suggest further research is needed to better understand how a more holistic and sustainable approach to FLE might be achieved.

Prior to our research taking place the FLE workshops offered to the Community were delivered by an established organisation (funded by a large financial institution) that delivers

FLE training to low income Canadians. Following consultations with some Community members this generic program was modified to include some relevant examples. The main aim of this training was to train the participants to become financial literacy trainers. From what has been reported by the participants interviewed, this has not occurred. The reasons for this will be discussed the results section.

The main research question guiding this paper was to explore the relevance of FLE in the Community; is FLE relevant in the Community (and if so, explore why previous FLE workshops failed to gain traction). The contribution to the literature (and the connection to the assembly) was around understanding why generic FLE programs are not inclusive and sustainable. And to understand how holistic and sustainable approaches to FLE in Community's (seeking this knowledge) could be developed using site based education.

The themes examined for this research paper were:

1. the Community's experiences with FLE, both formal and informal;
2. the Community's interest in FLE;
3. the Community's perception of what FLE can/cannot achieve and its relevance; and,
4. the Community's vision for the financial future of the next generation and how these might be achieved.

The key outcomes found in this research were that FLE does have relevance, Community counsellors/advisors are interested in collaboratively developing FLE resources that will be used in their practices (sustainable) when working with clients and that FLE is viewed as important for the financial futures in the Community. These findings may be useful to other researchers, practitioners and First Nations communities wishing to develop site based FLE.

## **Literature Review**

By site based education we are referring to education collaboratively developed with Community members and has the best interest of the Community in mind. This includes developing culturally-sensitive pedagogy that helps to shape educators' practices including the teaching environment where Aboriginal learners are encouraged to learn through their life experiences and where their life worlds are valued (Cherubini, 2010). Our understanding of site based education was influenced by Kemmis, Wilkinson, Edwards-Groves, Hardy, Bristol and Grootenboer (2014) definition of site based education development, "when educators think together about how best to do this, in a particular school, for particular students and a particular community, they are engaging in site based education development" (p. 212). The understanding how site based FLE would occur in this financially excluded (i.e., lack of formal financial institution on the reservation) Community, was importance after it was evident that the Community members interviewed wished for FLE resources/workshops to be collaboratively developed.

Financial literacy has economic and social importance because it relates to an individual's overall well-being (of which financial well-being is a component of) (Anielski, 2007). An individual's financial literacy has been linked to planning for and saving for retirement, which has impacts on both the individual and society at large (Lusardi & Mitchell, 2013). Through the teaching of financial literacy education it is often expected that students will increase their personal and retirement savings and become confident and effective financial decision makers (OECD, 2005). Herein, we argue, lies the unrealistic expectation often associated with generic FLE programs (Blue & Brimble, 2014); that one course will bring about

change to an individual current financial circumstances (Lyons, Chang & Scherpf, 2006). Although, some basic skills can be taught and acquired at these workshops may be naïve to expect that a full financial makeover will occur and be sustained after attending such a course (Pinto, 2009). Instead, more questions than answers often result and ultimately ‘blaming’ one self for not being able to change one’s financial circumstances can result (Willis, 2008). Thus, highlighting some reasons why many FLE programs fail to achieve their grandiose and unrealistic expectations.

Therefore, a shift of focus onto the importance of teaching tailored FLE, is not a new concept and reasons have to do with modifying content to the gender, age, socio-economic status, culture, life stages and financial goals of the participants (Brimble & Blue, 2013; Lusardi & Mitchell, 2013; Pinto, 2012; Pinto & Coulson, 2011). However, it has also been shown that personal financial skills and behaviours witnessed by children as they are growing up such as savings habits and knowledge of parent’s investing, have an effect on their financial literacy (Chiteji & Stafford, 1999; Li 2009; Shim, Xiao, Barber & Lyons, 2009). Other factors of such parent’s education levels have been found to be directly correlated with the child’s financial literacy levels (Lusardi, Mitchell & Curto, 2010; Mahdavi, 2012). Therefore, further research to align FLE outcomes with achievable outcomes, we suggest may be required.

Lastly, despite FLE being a contested area education that has both its advocates (Lusardi & Mitchell, 2013; OECD, 2005) and opponents (Arthur, 2011; Willis, 2008), it has an essential role to play in supporting the international policy priority of financial inclusion (Atkinson & Messy, 2013). Indeed, governments and policy makers regard FLE as essential learning for all and efforts have, and are being made, to add FLE to many school curriculums around the globe. Since the global financial crisis (GFC), FLE has remained high priority global initiative (OECD INFE, 2012). There are also many countries with policies focusing on financial inclusion where FLE is identified as an initiative to be used in financially excluded communities (Atkinson & Messy, 2013).

### **Theoretical Framework**

Practice theory (Kemmis et al., 2014; Kemmis & Grootenboer, 2008) was employed as the theoretical framework for this study. According to Kemmis and Grootenboer (2008), practices are composed of ‘sayings’, ‘doings’ and ‘relatings’, that occur in particular sites amid particular arrangements in three kinds of intersubjective spaces:

- *semantic space* (a shared language in which meanings are shared and mutual understanding is possible);
- *physical space-time* (shared locations in space and time in which interactions in shared activities and work are possible); and,
- *social space* (shared encounters affording different kinds of relationships are possible). (Grootenboer & Edwards-Groves, 2013)

In these spaces people encounter one another (and things) through interaction and interrelationships (Kemmis, Wilkinson, Edwards-Groves, Hardy, Bristol & Grootenboer, 2012) in practices that are held in place or ‘hang together’ (Schatzki, 2002) amid arrangements of three kinds:

- *cultural-discursive* arrangements found in a site; for instance, the technical language of finance that has particular meanings attributed to it in FLE situations;

- *material-economic* arrangements found in a site; for instance, how the resources are arranged in a community that allow particular activities to be occur; and,
- *social-political* arrangements found in a site; for instance, how individuals relate to financial institutions or one another.

In this way, practices constitute, and are constituted by, the particular language used, the particular activities that occur, and the particular relationships that form in the connections and interactions between the people and the things in the site. These form the *practice architectures* of a practice - the characteristic arrangements that exist in a site (Kemmis & Grootenboer, 2008).

Concisely, we employ the definition of practice Kemmis, et al. (2012) who define practice as: a coherent and complex form of socially established cooperative human activity in which characteristic arrangements of actions and activities (doings) are comprehensible in terms of arrangements of relevant ideas in characteristic discourses (sayings), and when the people and objects involved are distributed in characteristic arrangements of relationships (relatings), and when this complex of sayings, doings and relatings 'hangs together' in a distinctive project. (p. 3)

## **Method and Data**

The research was conducted in a participatory and collaborative manner, with the interests, concerns and visions of the Community used to guide this research. To suit the Community, the relationship between the methodology, epistemology, ontology and axiology of the research was viewed as circular and connected rather than separate entities (Wilson, 2008). The needs of the Community are at the heart of this project and guide our actions. We subscribe to the position of Maori scholar Linda Tuhiwai-Smith (1999), who argues that respecting Indigenous peoples' interest and needs thoroughly is the essential dimension of studies such as this, rather than focusing solely on the contribution the research will make in academic knowledge. Thus, the ethical responsibility guiding researchers to do 'the right thing' in Indigenous communities was followed. This research team also includes an Indigenous researcher and member of this Community.

To gain an understanding if FLE was relevant in the Community key members (informants) mentioned above were interviewed and an opportunity to speak to a group of Community members (over 55 Community members in attendance at the Summit) was used. Referring to transcripts from interviews conducted with seven Community members, field notes and a survey conducted at the Community Summit, the initiating and planning phases of developing site based FLE is examined using practice theory (Kemmis & Grootenboer, 2008) and a thematic analysis was conducted using qualitative data analysis software (NVivo version 10). Group interviews were employed because this was how the Community wished to meet, and the semi-structured interview approach to allow greater flexibility in the questioning. A list of guiding questions was developed for these two semi-structured interviews, and these were shared with the Community members before the interviews. A flexible questioning approach was employed to allow for 'story telling', which occurred particularly in the second group interview where it began where previous informal conversations had left off. Ethical clearance for this research was obtained and permission was sought and received from Community members to record conversations and the nature of this research was explained to each participant, and an information sheet was provided and a consent form was signed. All interviews were audio recorded, transcribed and each participant was sent a copy of the transcription for verification. Also, member checks of any stories or statements was undertaken to ensure the data collected

reflected the participants' views and perspectives. The data collected was analysed manually line by line and then again using NVivo software. This will be further discussed in the in next section.

### **Analysing the Sources of Evidence**

The transcribed documents were imported into Nvivo software for coding and analysis. During this process answers to the interview questions were identified and consolidated together. A line-by-line analysis was undertaken, nodes were created and passages of text were coded to one or many nodes (Bazeley & Jackson, 2013).

Six initial themes were identified during the manual analysis but were not labelled as nodes in NVivo. Instead as the text was re-read in NVivo, nodes were created and text was coded to relevant nodes. Through this process twelve nodes were established (beliefs, generosity, guilt, failure to gain traction, financial balance, financial knowledge, financial security, financial wisdom, future program, relevance, skills and tailored). Each node and the coding associated with it was then reviewed resulting in six nodes that will be reported including: (relevance, failure to gain traction, guilt, skills, tailored content and future program). In the next section, the nodes will be reported and discussed.

### **Results and Discussion**

This section highlights the six nodes identified from the sources of evidence acquired. Some direct quotes are included in this section to illustrate the interview data and represent the views expressed by participants. These quotes are used to understand how the things we 'say' about our finances impact what we 'do' with our money and what we believe (and feel) about money, also affects how we 'relate' with others with money. Therefore, identifying the connection between our 'sayings', 'doings' and 'relatings' was key when investigating Community's perception of what FLE may or may not offer the Community. These initial findings are examined against the cultural-discursive, material-economic discursive and social and political discursive arrangements that constitute the practice architectures that are present in the site.

#### ***Relevance***

With our knowledge of what has been reported in the literature both for and against FLE it was essential to find out from the Community what their views were about the relevance of FLE. From the discussion in the interviews and the survey responses it was clear that the Community member who participated saw the relevance of FLE.

It's relevant... You know everyone wants to learn about money and um everyone wants to, I guess, it's like everything revolves around it right? It brings out either positive behaviours or negative behaviours that everyone sees especially in a small community. (Female, CL1)

There was also a reported desire to have FLE taught from a very young age, at the local primary school.

I think it's important to introduce it when they're young... I think as soon as they are able to understand. (Female, CL2)

Teaching FLE in the early years at school was viewed as especially important if these skills were not being taught by their parents. Also high school students who may be leaving the Community to attend college or university were identified as requiring FLE skills.

Yeah, we want courses that they have to take at school and part of the high school kids and the kids going off to college. They come for a week to do budgeting and financial literacy and they know what their budget is before they go off to school. And what kinds of things they are going to need to cover, if they haven't learned it from their parents who don't have those skills, so somebody has to teach them before they go off. (Female, CL2)

It was also shared that the Community had been wanting to develop a FLE program for both their primary school aged children and for the students attending high school (located off the reservation) who will attend post-secondary schooling such as College or University (also located off the reservation).

We've been wanting to make a program to start it with the later years in the public school and then to our high school kids... before they go off to college education...so that they now how to manage their money right away. (Female, CL2)

Results from the short survey administered directly following the Community Summit revealed that 40 out of 55 (72.7%) participants thought that they would like more information about financial literacy or improving their personal finances. However, this result initially appeared to be somewhat at odds with the failure of the previous FLE initiatives to make an impact in the Community.

### ***Failure to gain traction***

It was identified by participants of the previous FLE workshops that the main aim of the workshops was to teach the participants how to teach FLE to their colleagues (train the trainer model).

So that's what we looked at first was part of the plan, was to teach people how to teach finances. (Male, CL1)

Therefore, this node was created to understand the reasons why the previous workshop was not sustainable. More than a year after this FLE workshop took place there was no reported knowledge of any FLE programs being taught by Community members to other Community members.

No, the majority that were there thought it was a pretty good course and gave them some awareness into financial literacy and what to look at and what to expect around budgeting and all that but they all agreed that or the majority agreed that they wouldn't be willing to go out and teach people. (Female, CL3)

The reason identified for not wanting to train other Community members following this workshop had to do with a lack of confidence not only presenting financial content but, presenting in general.

They would be uncomfortable presenting and I think presenting is another piece in itself that is not specific to financial literacy but with anything. You know presenting anything, they are uncomfortable with that. I mean which we knew that was going to be case anyway. But [this outside organisation] was hoping to get more facilitators and instructors out in the communities and that is part of their goals to educate more people

out there who can educate their clients or Community members. And we thought that was a good idea and that's why we brought the program here. So it's not taking off that way because people are just, really just don't want to present. (Male, CL1)

Clearly there were issues related to the relevance and appropriateness of the 'general content' for the particular practice architectures and conditions that are evident in the Community. We understand that participants view FLE as relevant by their 'sayings' (expressed interested in tailored future FLE programs), by their 'doing' bringing an outside organisation to teach FLE (and by attending the workshop) however, an uncomfortableness in their 'relatings' begins to emerge above with regards to presenting/delivering financial content and again in the next section discussing guilt.

### ***Guilt***

This node was created to capture the 'sayings', 'doings' and 'relatings' about this uncomfortableness with money that was discussed throughout the interviews. This was discussed by employment counsellors/advisors working with clients on social assistance.

So maybe there is a belief that it's not ours so if we get rid of it really quick then it means less. (Male, CL1)

This uncomfortableness was also discuss in general terms as often heard by other Community members as an accepted way of 'relating' to others, perhaps to appear not better off than those less fortunate.

Yeah, and you hear people saying that today. Coming back home on our boat people are loaded up their groceries and they've gone to pay their bills and they say "I am not happy until my moneys gone..." (Male, CL1)

In a historical sense the issue of how First Nations people were perceived to behave with money may still have an impact on how some Community members feel today. There was discussion about not 'giving' First Nation people money because it was assumed by government agents (many years ago) that it would just be 'wasted'. Therefore, with the existence of such a belief there may be a long lasting effect on how an individual behaves and how their actions impact those around them.

A point that I read from the history from almost 200 years ago those government agents, we are talking about, followed our particular tribe and how they were saying that they shouldn't give us money rather they should pay us in implements because we just waste money and then it's gone and nothing became of it and that's almost 200 years ago. And if you look around how we manage money now, it's probably still the same. (Male, CL1)

Following this discussion there was also discussion about a Community fundraising event that occurred while this research was being conducted. This fundraising event was put on by the Community donating gifts (prizes) and food (for purchase) with the profits going to support a family in need. This fundraising event was used to discuss how Community members may release the guilt associated with having money, especially when other Community members appear to be in greater need.

And that probably helps to release that guilt as well. And it's so amazing when you see that, our Community come together and raise \$3000 or \$4000 for somebody in need and how else can you do that in a couple of hours. (Male, CL1)

This node begins to explain how ‘sayings’ revolving around an uncomfortableness with money then has an impact on one’s ‘doings’ such as spending it or giving it away as a means to ‘relate’ with one and other through various events including Community fundraising events. This may also explain some reluctance associated with engaging in FLE workshops offered by outside organisations such as organisation such as large financial institutions for organisation funded by these institutions. The social political discursive arrangements associated with power and knowledge, in this case, both were held by the outside organisation not the Community seeking this knowledge.

### ***Skills***

Acquiring financial literacy requires both numeracy and literacy skills to understand the financial concepts and to read (and comprehend) the examples used to illustrate the financial skills. When discussing financial literacy in the Community concern raised about Community members who may not have the adequate literacy and numeracy skills to acquire financial literacy skills. With limited opportunities on the reservation to acquire numeracy and literacy skills, outside of the primary school, this presents as a inhibiting factor constraining future learning within the Community.

I’m just looking at the word financial and the word literacy and am thinking about the ones who can’t read and write. Can they count money? How do they value money?  
(Female, CL1)

Despite the interviewed Community members not initially thinking they were taught financial lessons from their parents some examples of lessons began to emerge. It was reported that sibling were often expect to help out financially in the family. This informal lesson pushed individuals to make money to help support their family and helped to fostered and understanding and appreciation of support received.

My parent’s never taught me how to manage money. It was basically if I was to go out there and make my money I was learning how start putting forth, to my family. Like, I would have to give everything to help raise my [sibling]. (Female, CL4)

My [sibling] worked hard to get that [for me] and I made sure I was disciplined to learn that and that’s pretty much what everything comes down to, learning discipline. So many things I learned on my own, I like I said earlier when I started out I developed a discipline that lasted a couple of years and I had jars of money hidden all over the house ... (Male, CL1)

This section highlights some of the ‘doings’ and ‘relatings’ experienced in the financial context of a family. The informal teachings that took place within families have helped to gain a better understanding of some Communities members experience with what you do with money ‘share’ and ‘support’ your family and how you show (‘relate’) your family gratitude for their support through dedication.

### ***Tailored content***

When exploring the relevance of FLE, the need for tailored content was often mentioned. It was important to capture as many FLE workshops operating in Community organisations contain generic content. There was an understanding that generic content could be enhanced by teaching age specific FLE content.

You just have to make sure that you are educating each different age group at the same time you can't just focus on one. Cause we do pretty much. (Female, CL2)

There was discussion about the invited-outside organisation consulting with some Community members to revise their generic material by including appropriate examples relevant in the Community.

Like they tried to address our population, like a high percentage is on social assistance so they would use the amounts we gave them... (Female, CL2)

Also a desire for basic skills around understanding the difference between needs and wants as well as teaching about good versus bad debt and the cost of using predatory lenders was discussed.

So it's basically educating the clients on their needs and their wants. Do you need that? Do you want that? (Male, CL2)

I guess just trying to teach them why it is necessary, like what's a good expense or good debt and what isn't. And how interest rates at loan places [alternative/predatory lenders] how that effects them, that is seems easy but it isn't and you are paying twice to three times what you should be. (Female, CL2)

Overall, it was seen to be important to tailor future FLE workshops specific to the audience (i.e. primary school children, students heading off to post-compulsory schooling and/or clients receiving social assistance) and issues faced by the Community.

It was previously mentioned in the skills section above about a lacking of teaching about saving money as there was more of a focus on using your money to help support the family. This highlights another example of how 'doing' and 'relatings' in a financial context are not always as clear as the generic programs content make it out to be (earn money, pay your bills, spent a bit on yourself and save the rest).

### ***Future programs***

After the interviews and the Community Summit it became evident that there was interest in collaborating in the designing of FLE resources for the Community. Therefore, a node capturing what was desired in the future FLE programs was created. During the interviews, the importance of designing something the Community members would be comfortable using was discussed.

"... designing a program or a model that we can use in our community that people would be comfortable using and delivery it in our own style whether it is one on one or group sessions or even if it comes down to people deciding that we would like an independent person not part of any staff to be delivering this type of information as like an advisor that comes in once in a while so maybe more people are comfortable with that because they don't have to devolve their financial information or their habits." (Male, CL1)

From the initial findings reported here it appears that the dictatorial approach associated with FLE should be avoided and instead framed as guidance.

"I think more of a guidance thing. I don't like to be told to, if I was to be in their shoes I wouldn't like to be told I have to do this and I most likely won't pay attention. But more

guidance through steps to take the counselling part, like a map, instead of doing it for them, showing them how to, not codling.” (Female, CL3)

The importance about future FLE programs/resources appeared to be about Community members’ ability to access relevant resources at their own free will, when they are ready for to learn about these skills.

To summarise the practice architectures that enable and constrain financial literacy have been discussed. Enabling factors identified are: interest in acquiring financial literacy skills and developing resources by Community members; having a Community member (also a member of this research team) working collaboratively with this Community to develop these resources; and, having a Department that wishes to modify their practices around how they financially educating their clients. The constraining factors present appear to be low numeracy and literacy levels, high levels of unemployment in the Community, generic program content, uncomfortableness with money and delivering presentations and guilt around having/receiving money.

### **Concluding comments**

The results presented above indicate the importance of FLE in this First Nation Community. This understanding of the importance as described by the Community is this papers’ key contribution to the literature. Aware of both sides of the financial literacy debate, instead of telling the Community why FLE is (or is not) important, the Community provides their reasons for its importance and relevance. This insight (data generated through the interviews and a Community Summit) then provides direction on how to begin preparing the future site-based FLE education initiatives. By specifically examining FLE in the context of this particular community, an understanding of how practices are enabled or constrained in the site by the evident practice architectures, we have begun to identify appropriate tailored FLE content that will be developed with the Community. Specifically drawing on the ‘sayings’, ‘doings’ and ‘relatings’ found in the results section helped to steer the direction and provide further guidance about the appropriateness of the FLE practices in Community. Findings from this research provide support for tailored and sustainable approaches to FLE where Community members have choices about participating or not. Therefore, the research undertaken provides evidence that tailored FLE that has a place in this Community. This research begins to contribute to our understanding of how FLE in a financially excluded community is enabled and constrained by ‘practice architectures’.

The findings reported here are from the initial stages of the project, and therefore, they must be considered as limited in a number of ways. First, this research reflects the opinions of only the Community members interviewed (or surveyed) and may not be the opinions of other Community members. As the study progresses, the views of a broader spectrum of Community members will be canvassed to provide richer and wider insights into the issues at hand. Also that this was exploratory research study, and so generalisations of the specific findings to other contexts are probably not appropriate or meaningful. Indeed, the study has already indicated that the FLE practices evident in the Community where enabled and constrained by the site specific practice architectures, and these will by their nature vary from site to site. Therefore, it was not our intention in this project to provide generalizable findings that can be applied broadly, but

rather the purpose was to offer insights into how FLE may be developed in a First Nation Community with its members.

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## **“A Stepping-Stone to Do Something Else” Exploring Why Jamaican Student Teachers Enter and Complete Teacher Education**

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**Abstract:** *This paper is based on a study which explored why Jamaican student teachers, who were not aspiring to learn to be teachers or teach, entered and completed a three-year diploma in teacher education programme. Postcolonial theory (Ashcroft, Griffith & Tiffen, 1989) and theory of occupational choice (Ginzberg, 1963, 1972) served as analytical frames to assist in better understanding the Jamaican student teacher experience. Qualitative methodology provided the means to including the essential “voices” of eight Jamaican student teachers who were enrolled in the programme. The findings from the study raised the notion of “youthfulness”, and how this may have influenced aspirations and decisions of post-secondary students living in a small island developing state of limited economic and academic options and opportunities. They also reinforce the idea that teacher education serves as a “stepping-stone” to more desirable educational or occupational goals. Ways of enhancing Jamaica’s teacher education programmes, in light of current reforms, are also discussed.*

**Keywords:** Student Teachers, Teacher Education

### **Goals, Aspirations and Becoming a Teacher**

As a new teacher educator at a Teachers' College in Kingston Jamaica, I was of the mindset that individuals were motivated to learn to teach because they wanted to become teachers. They wanted to become teachers for reasons such as a love of children, the opportunity to contribute positively to society, or to make a difference in young people's lives. Research, both internationally and in Jamaica, has shown that these reasons are common among individuals who choose to teach (Ashby, Hobson, Tracey, Malderez, Tomlinson, Roper, Chambers, & Healy, 2008, Brookhart & Freeman, 1992, Evans, 1993, Lortie, 1975; Malderaz, Hobson, Tracey, & Kerr, 2007). However, over time, I became especially interested in the more extrinsic reasons why a significant number of Jamaican student teachers chose to enter teacher education, and pursue what appeared to be a path to teaching.

The conversations I had with my students over the years, predominantly young, Black females, from urban or rural working class backgrounds, revealed that a noticeable number had entered teachers' college for reasons which did not seem related to wanting to teach. I could see that they realized the importance of education and they were certainly motivated to learn; however, the same keenness and motivation did not seem to apply to the prospect of becoming a classroom teacher, particularly for any extended period of time. Some expressed a desire to use teachers' college as means to obtain a university degree. Those who said they were taking this route popularly referred to teachers' college as a “stepping-stone”. Others alluded to teaching as a “backup” occupation, something they could do in the interim until they were able to move on to their desired career goals. In other instances, students stated that they applied to teachers' college because they did not want to stay at home and do nothing, or that they did not have the money to pay high university tuition fees. Finally, there were those who said they were

influenced by family members or significant others who believed that teachers' college would be their best post-secondary option at the time.

The reasons expressed by my student teachers regarding why they entered teacher education, along with my own reflections, were the source of my curiosity regarding why Jamaican students choose teacher education, and therefore a path to teaching. My thinking was also largely influenced by three studies which explored why Jamaican student teachers chose to teach (Bastick, 1999; Brown, 1992; Evans, 1993). Much of the analysis and discussion in these studies focused on the intrinsic, altruistic, and extrinsic reasons why Jamaican student teachers wanted to become teachers; however, several of the responses to the question of wanting to become a teacher appeared to be more appropriate responses to the question of why one would choose teacher education or teachers' college. The primary purpose of this paper is to focus on Jamaican student teachers, who did not aspire to teach, yet entered and completed a teacher education programme. The discussion concentrates on the findings related to the following question:

*What accounts for Jamaican students, who indicate that teacher education and teaching are not their educational or occupational aspirations, entering and completing a teacher education programme?*

This question was one of two essential research questions which guided a study that was conducted at a teachers' college in urban Jamaica in 2012. A paper of this nature is relevant at this time given the numerous educational reforms (teacher education included) that are currently taking place in Jamaica. A better understanding of who enters teacher education today may be an asset to a transforming education system where student teachers may at some period, for whatever period of time, become the teachers who implement revised curriculum, or frontline administrators of educational initiatives.

Postcolonial theory (Ashcroft, Griffith, & Tiffin, 1989) and theory of occupational choice (Ginzberg, 1963, 1972) were used to develop a deeper understanding of the Jamaican student teacher experience. Postcolonial theory was useful in that it provided an analytical frame for recognizing that education in colonial and postcolonial Jamaica served as an instrument to control and transform the actions, thoughts, and values of the majority black working class population. Furthermore, postcolonial theory helped to explain how teacher education, although a means by which the colonizer could control the masses, also served as a significant stepping-stone to higher education and employment for many black Jamaicans. Resulting from this legacy was the plethora of teachers colleges' that exist in Jamaica today; which, predominantly young, black, females from working class backgrounds use as their stepping-stone to higher education and employment.

In addition to postcolonial theory, theory of occupational choice (Ginzberg, 1963) was used to develop a deeper understanding of why Jamaican students were choosing teacher education. This analytical frame was useful in that it revealed how planning an educational and career path can be a very intricate process; and, to explain how the process of making educational and occupational choices may be greatly influenced by factors such as the age, sex, race, socio-economic class, values, and academic aptitude of the individual.

## Methodology

The student teachers that participated in this study attended Town Teachers' College in Kingston, Jamaica. Seventy-seven final year students in Town's three year Diploma in Teaching Programme participated in a research survey. A more purposive sample of eight student teachers was selected from the 77 to participate in two rounds of interviews. Qualitative research methodology was used to explore a number of issues. Qualitative research in this instance was viewed as the "best fit" and suitable means to acquiring a "thicker" understanding of the questions being asked (Delamont, 1993; Punch, 2009).

Grounded theory was used as a research strategy for both the collection and analysis of the data. This research strategy was also a means to generating theory based on the "voice" of the participants, and their empirical data (Glaser & Strauss, 1967; Punch, 2009). Grounded theory was utilized with an open-mind; meaning that relevant literature, and aspects of colonial/post-colonial theory (Ashcroft, Griffith & Tiffen, 1989) and theory of occupational choice (Ginzburg, 1951, 1963, 1972), would augment the concepts, themes and theories which emerged from the empirical data.

## Participants

The eight student teachers who were selected through purposive sampling were on the verge of completing their final year of the Diploma in Teaching Programme at Town Teachers' College. They were selected because they indicated that they did not necessarily want to go into teaching, but had chosen teacher education as a post-secondary educational option. Their stories indicated that they entered teachers' college because they were young and unsure about what to do (youthfulness), were advised what to do by others (influence), could not access programmes they preferred (limited credentials/funds), or believed teachers' college could lead to preferred programmes and career paths (stepping-stone). Table 1 below summarizes the information that they provided on the questionnaire and during the interviews; information which was relevant to their selection as participants in the purposive sample, and to answering the research questions which guided the research study.

**Table 1: Profile of Eight Student Teachers**

Name	Age	Education Pre-Teacher College	Reasons for entering teacher education	Post-secondary goals/aspirations	Post- college goals/aspirations
Tahira	17	(7) Subjects Math (re-sit)	Unsure Influenced Stepping-stone	Nursing Pediatrics Culinary Arts Food & Nutrition	Teach Food & Nutrition
Staci	18	(6) Subjects No Math.	Influenced Affordable	Law Food & Nutrition	Teach Special Ed. Degree
Mel	18	(5) Subjects Math	Unsure Influenced Stepping-stone	Graphic Design Journalism Accounting	Degree
Neka	19	(5) Subjects Math.	Affordable Influenced	Nursing Business Admin. Constabulary Maritime Studies	Teach (short term) Maritime Studies Uncertain Degree

Miguel	20	(4) Subjects Math.	Stepping-stone	Culinary Arts Hotel Management Event Planning Human Resources	Teach (short term) Culinary Arts Computers Special Education Study/work Canada
Adriana	23	(7) Subjects (C.A.P.E.) Math. (C.S.E.C) Incomplete university programme	Influenced Stepping-stone Calling/Fate Wanted something else	Hospitality and Tourism Nutrition University Post-Graduate	Teach (short term) Degree MA. and Ph.D. Degrees
Jade	25	(4) Subjects No Math. Incomplete private college	Stepping-stone Wanted something else Influenced	Journalism Business Admin.	Teach (long term) Principal B.Ed. Degree Pass C.S.E.C. Math
Gabriel	27	(6) Subjects Math Repeated 4 <sup>th</sup> Form Incomplete assoc. degree programme	Calling/Fate	Accounting Cosmetology Employment Own Nursery	Teach (short term) Businessperson Own Nursery Degree

### Why Jamaican Students Choose Teacher Education

I was not surprised when 45 of the 77 (58%) student teachers who completed the student teacher survey indicated that teacher education was not their first choice for post-secondary schooling. I was not taken aback when a significant proportion of these student teachers indicated that their first choice was tertiary education related to some other profession/occupation such as nursing, medicine, journalism, accounting, or law. Specifically, the findings in this study revealed that 26 of the 77 (34%) participants chose to do teacher education because it could serve as a stepping-stone to university or further education. Another 12 (16%) identified a variety of other reasons to explain why they chose teacher education. These results confirmed what I as a teacher educator had been hearing from my students for the past 13 years; that is, a significant number of Jamaican student teachers who were enrolled in teachers' college did not aspire to teacher education, and were not aiming to become teachers. In the following sections, I present the reasons why this social phenomenon exists.

### Youthfulness

*"I am always told that I am young; I have enough time to do whatever I wish to do" - Tahira*

It was Tahira who drew my attention to the notion of youthfulness, and how this may have had some influence on the educational and occupational aspirations of the young participants in this study. Tahira was the youngest participant, and one of four who had started teachers' college before the age of 20. When asked why she did not pursue her aspiration to become a pediatrician, Tahira responded by stating that "when you are young some decisions you make aren't the way they are supposed to be. I guess that [is] why. I am always told that I am young; I have enough time to do whatever I wish to do. I am just taking it one step at a time." This statement is intriguing, in that the "decisions [youth] make [may] not [be] the way they are supposed to be." It suggests that that a poor or wrong decision may be associated with being

young, and a characteristic of the optimism associated with being at a stage of exploring how they might translate their interests into career and occupational possibilities.

Among the eight student teachers who were interviewed for the study, those who started teacher education before the age of 20 expressed an interest in a greater variety of educational and occupational options than the older participants. For example, Neka expressed she had an interest in nursing, the constabulary, and marine biology. On the other hand, Jade, the second oldest among the participants, seemed to have been only interested in journalism, and teacher education was supposed to be her route to journalism.

### **The Influence of Others**

*“...my brother believed that I had to do something, teachers’ college was my only option” - Neka*

The other message Tahira’s statement sends is that the decision to choose a particular career path can be greatly influenced by others; usually, by those who were closely related to the student. Eleven of the 77 (14%) student teachers, particularly the younger student teachers who participated in the survey, indicated that the influence of others was a reason they decided to enroll in teacher education. As the participants in the purposive sample revealed, friends – as in the case of Mel - and parents and siblings, played an influential role in their decision to go to teachers’ college. For example, Neka revealed that it was her older brother who insisted that she enroll in teachers’ college, and as she put it, “I did not know what I wanted to do [and] I guess my brother believed that I had to do something, so I guess teachers’ college was my only option. So I just went ahead”.

Staci and Tahira, two of the younger student teachers, had their list of options reduced by significant others who believed that they were more capable than what the programmes they were aspiring to had to offer. Both Staci and Tahira had considered doing Food and Nutrition at H.E.A.R.T. Trust, a vocational training programme. Staci described the opposition she received to her wish by stating that “... [she] told [her] guardian that [she] wanted to go to the Human Employment and Resource Training Centre [H.E.A.R.T.], she said I can’t go there because I am too smart...”. Tahira, unlike Staci, was not given a reason why she should not attend H.E.A.R.T., but her aspirations of doing Food and Nutrition was also frowned upon by a parent who was “...not in full agreement with that [H.E.A.R.T.] programme...”.

Based on what Tahira, Stacie and Neka said about their post-secondary aspirations being directed/redirected, it would appear that significant others did have an influential role to play in the decisions a significant number of student teachers made regarding their choice of post-secondary schooling.

### **High School Credentials**

*“I needed to have five subjects (C.S.E.C.) or more, and I only had four” – Miguel.*

The inability to satisfy admission requirements for preferred post-secondary programmes also had an influence on the decision some of these students made regarding their enrolment in teachers’ college. The quantity and quality of the academic credentials of Jamaican high school graduates can have an effect on their options to access higher education. Fifty-six students (73%) who participated in the survey component of the study had completed high school up to fifth form (grade 11), and possessed credentials which qualified them for only certain post-secondary

programmes e.g. certificate, diploma, and some associate degree programmes. The majority of the students who participated in this study would have passed a minimum of four required subjects at the Caribbean Secondary Examination Certificate (C.S.E.C.) level which, along with other admission criteria, would have qualified them for a diploma in teaching programme. However, these students would have found it very difficult, if at all possible, to be accepted into more advanced post-secondary programmes such as a three year degree, or nursing programme at the University of the West Indies.

The high school credentials of Adriana, Miguel, and Neka provide a good example of how success in regional examinations, leading to the acquisition of subjects, can influence the number of post-secondary options available to Jamaican high school graduates. Adriana, the only student teacher to complete high school up to C.A.P.E. level (grade 12 and 13), clearly had more post-secondary options from which to choose. When Adriana was asked to speak about her experience in applying to education programmes at the university level she said, “I have applied to every single programme [and] I've been accepted for every programme, except Science, Medicine [and] Pure and Applied Science”.

Miguel, who had completed high school up to fifth form, clearly did not have the same number of options. In Miguel's case, a lack of C.S.E.C. subjects (four) reduced his chances of attending university and eliminated an opportunity to enrol in a college programme in Canada. Miguel described the disappointment at not getting into the Canadian college programme by stating that “... I needed to have five subjects [Caribbean Secondary Education Certificate] or more, and I only had four...They said I could do another programme, in which I study there for a while, [and] do what they call their high school level first”.

It is also worth noting that several of the student teachers in this study indicated that mathematics was a subject that they were uncomfortable with, and not very competent at. Mathematics is an important subject to pass successfully at the regional examination level (CSEC), especially if one hopes to be qualified for a wide array of higher education programmes and institutions. It is one of the subjects that several Jamaican tertiary education programmes expect from an applicant in order to satisfy admission requirements. Adriana, the participant with the most high school credentials, and the most qualified for a wider selection of post-secondary programmes, was very animated when she explained that she had “...never really been good at Math, [and to her] it was like a disease...” She went further to say that it was Mr. Jay, her Agricultural Science teacher, who convinced her about the importance of the subject, and through his offer for her to attend his extra lessons (remedial) classes at no charge she was able to pass the examination with a modest grade 3.

### **The More Affordable Option**

*“She didn't have the money to send me to school for seven years or more...” - Staci*

Several of the student teachers who participated in the study indicated that the cost of financing their post-secondary education was a major issue. Some indicated that they could not afford to attend the higher education programmes to which they had been accepted, or those to which they were aspiring. Adriana, who been accepted to a degree programme at the university, revealed that she could not continue in the programme because she “never had the financial resources to do so; and, at one point never had anyone who could sign for a student loan.” Staci wanted to pursue a university education; however, her guardian indicated that she “didn't have

the money to send [her] to school for seven years or more [and] she couldn't afford Law.” Neka, during our second meeting, indicated she also was aspiring to do another tertiary education programme, but this was dependent on her having the financial means. She said, “I wanted to change my area of study, but due to financial difficulties I [wasn't] be able to”. Seeing that these students had ultimately entered and completed teachers' college a simple explanation would suggest that teachers' college was an affordable option.

### **The Accessible Option**

After closely examining these student teachers' reasons for enrolling in teacher education, it was apparent that after completing high school many did not have a wide variety of tertiary education options from which to choose. For instance, those who expressed a desire to enter university level programmes could not because they lacked the high school academic credentials, and/or financial means to qualify for admission to these programmes. As the findings showed, the options for these student teachers were further reduced by significant others who may have been more partial to an academic teacher education programme than a programme of a vocational nature. Therefore, teacher education for these student teachers was one of a few, possibly the only, post-secondary educational choice available to them.

### **The Significance of Teacher Education as a Stepping-Stone**

Several of the student teachers who participated in the study indicated that they chose teacher education because they could use it as a stepping-stone to other higher education programmes and possibly other occupational fields. For some, such as Jade, teacher education would be a possible path to journalism. For others, like Tahira, whose choice was influenced by a family member, teachers' college was viewed as a possible step to a career in medicine. Even today, among students who are enrolled in a four year Bachelor of Education in Teaching Degree programme, it is not surprising to be told by many that teachers' college was not a first choice for post-secondary schooling, and it is a springboard or stage to a more desired educational or occupational goal. It can be argued that the stepping-stone phenomenon among students in the teachers' college is prevalent, and for this reason deserving of our full acknowledgement and effort to view it as phenomenon that can have value for both the student teacher and Jamaica.

One reason why this phenomenon might be viewed positively is because it supports the popularly accepted educational principles of “lifelong learning” and “continuing education”. With these principles in mind teacher education, via the teachers' college, can be viewed as a constructive component of a broader and more complex career plan, one which may eventually lead young student teachers such as Tahira, Staci and Neka toward their ultimate education and career goals. With these principles in mind the stepping-stone concept implies that the youthful student teacher will be engaged with tertiary level schooling for an extended period of time. It suggests that their education does not stop after completing a Diploma or a Bachelor of Education in Teaching. This can be viewed as a positive endeavour particularly if it results in the student teacher remaining in higher education to further develop personal and professional skills. By completing the teacher education program students can learn a new/other skill(s) in addition to teaching, buy time to “crystallize” educational and occupational values and aspirations (Ginzberg, 1963) and insulate themselves from a depressed economy when there may not be an abundance of employment opportunities in teaching.

If teacher education is viewed as a valuable constituent of students' lifelong learning and continuing education, then what can the teachers' college potentially do to address this social phenomenon? I believe the possible answer begins with the teachers' college conceptualizing teacher education curriculum in broad and more complex terms. In exemplary teacher education programmes these features are fundamental, and are usually of a high standard and quality (Darling-Hammond, 2006). Teacher education should no longer be considered merely the compilation of subjects and syllabus documents which set out educational aims, objectives, activities, theory and practical experiences. Neither should teacher education curriculum be just about a technocratic transmission of knowledge. Teacher education must resist the pressure from internal and external sources which advocate that the most essential purpose of teacher education is to impart knowledge and train teachers.

Teacher education curriculum could be more holistic; one which aims at being experiential and liberating. Within this pedagogical framework teacher education would be concerned with all of the student teacher's experiences, whether planned or not, formal or hidden, and can be acknowledged as important to learning to teach (Miller & Sellers, 1990; Zais, 1981). Teacher education curriculum of this nature would deemphasize - not remove - the reductionist notions that subject knowledge, educational theory and teaching strategies are the most vital and sole qualities of learning to teach and being a teacher. A holistic curriculum would encourage student teachers to explore beyond the technical aspects of teaching in hope of developing a more comprehensive understanding of what it means to be a teacher, professional, and global citizen. A holistic teacher education programme of this nature would create space to explore issues such as teachers' college serving as a "stepping-stone" to other academic and career goals.

Teachers' college may not be the final stop in the educational and career journey of numerous young Jamaican student teachers. With this understanding, could more have been done for the students who participated in this study, during their three years at teachers' college, to inform, guide, and support their educational and occupational plans and aspirations? Could more have been offered in addition to the job search skills which they would have been taught in courses such as Personal Development, or to the support they would have received from the Placement Officer, Guidance Teacher, or sympathetic Lecturers? In my opinion, the uncertainty about future goals and aspirations, and the disappointment and frustration associated with not working or having the financial resources to pursue further studies, may have been mitigated to some extent had there been opportunities within the teacher education programme for these student teachers to thoroughly explore the educational and occupational options available to them following teachers' college.

Indications that more could have been done in terms of preparation for life after teachers' college surfaced during my conversations with these student teachers six months after their completion of the programme. It was at this time I heard what I believed was a narrow discourse related to educational and occupational plans. When they spoke about pursuing a first degree their options were usually limited to either completing the degree at another local teachers' college, or the local university. When they spoke about finding a job in teaching this was usually confined to employment at one of the local high schools, primary schools, or early childhood centers. Very little was said about pursuing further education or employment beyond the shores of Jamaica - either through distance education or via migration. There was also very little said

about using their newly acquired qualifications to seek volunteer positions or employment in teaching in either the Caribbean region or further overseas.

I believe, within the context of a holistic teacher education programme the discourse related to educational and occupational plans and aspirations may be broadened. I offer this suggestion with good intentions, but not irresponsibly incognizant of the challenges and limitations which may besiege the ambitious young Jamaicans who may be eager to study or work outside of their small island developing state. A postcolonial analysis reminds us of the social, economic, cultural, and political structures that hegemonically steered these student teachers down the educational and occupational paths they had started. It also helps to explain why school and living expenses, work permits, student visas, family responsibilities, academic credentials, and a willingness to leave the familiar for the strange can be a challenge for a keen novice teacher with limited resources, qualifications, information, and support. The postcolonial standpoint recognizes the seriousness of “brain drain” and how the loss of innovative and productive workers and professionals can deplete a small developing country of its prized human resources, and most vital elements for sustainable development.

### **The Significance of Teacher Education as an Accessible Higher Education Option**

The majority of the students who participated in the purposive sample of the study expressed a desire to enrol in university level programme at some point in order to earn a degree. These students could not fulfill this desire immediately after completing high school for reasons related to limited academic qualifications, insufficient financial resources, or the influence of significant others. For these reasons, it would appear that teacher education, by default, emerged as one of a few, if not the only, post-secondary educational option for these student teachers. The teachers’ college as one of a limited number of post-secondary options is not new in the Jamaican context. Evan’s (2001) in her study also noted that a significant number of Jamaican teachers chose to “...go to teachers’ college, because of the limited opportunities that [existed] at the tertiary level” (p. 31).

Understanding that the teachers’ college may provide one of, if not the only, opportunity for young and ambitious Jamaicans to continue their education beyond high school should be enough incentive to try and make sure that the teachers’ college remains a viable and accessible higher education option for those who may be disadvantaged as a result of social, cultural, economic, or political factors. As Gentles (2004) informs us, “Teachers’ colleges are the cheapest form of tertiary level education available [and] thus heavily subscribed by the poorest students” (p. 132). Interestingly, the role of the teachers’ college is a salient part of Jamaica’s colonial legacy; whereby, after both slave emancipation and colonial independence it has served as a stepping-stone to higher education and a means to upward social mobility for many marginalized Jamaicans (King, 1998; Hall & Bryan, 1997; Evans, 1993; Gentles, 2003).

Given that teacher education is an accessible post-secondary option for many young Jamaicans, how do we ensure that the teachers’ college remains viable and accessible? And, is it fair to so many young and ambitious Jamaicans that teacher education, in spite of its good intentions, remain one of, if not the only option for higher education? In my opinion, the answer to the first question is straightforward; that is, if teacher education remains one of, if not the only, post-secondary option for a substantial proportion of the nation’s marginalized youth population then it should be as accessible as possible. Therefore, teacher education should remain a feasible

option for those who have limited qualifications and financial means to access other forms of tertiary schooling. It should also be open to those students who, as a result of their youthfulness and impressionability, are coerced into attending teachers' college. The answer to the second question, however, is not as straightforward because it asks us to consider how the post-secondary options of more Jamaican students might be expanded so that "all eggs do not have to be placed in one basket". In the following paragraphs I discuss what might be considered.

Before discussing how the post-secondary options of marginalized Jamaican youth may be expanded it is important to note that Jamaica has followed behind other middle income countries in regard to the access their most vulnerable youth have to higher education (Evans & Burke, 2006). This is important to recognize because access to higher education is vital to the sustainable development of any nation. Educational levels in a country are usually directly proportional to its level of growth and development. For this reason, education and opportunities to access quality higher education should be viewed as essential mechanisms for economic growth and sustainability.

If the post-secondary options for young working class Jamaicans are to be expanded then there should be a continued push within the Jamaican public education system to find strategies and initiatives which enhance student success in high schools. This might include continuing to find strategies that improve student competence in core subjects like Mathematics and English Language, subjects which are usually essential prerequisites for acceptance into numerous tertiary level programmes. At the same time, tertiary level institutions should closely examine the value and relevancy they place on these subjects as prerequisites for admission to some of their programmes.

Jamaican high schools, as I have recommended for the teachers' college, may also consider developing or expanding comprehensive educational and career planning programmes which assist the young high school student with his or her post-secondary plans and aspirations. A similar recommendation has come from the Task Force on Educational Reform (2004) stating that a revised Jamaican secondary school curriculum should include "cross-curricula themes such as career education...for the holistic development of the child." (p. 100). High schools may also consider "extending the length of the schooling experience" as a means to keeping young fifth form students in secondary school for a while longer. Ideas such as these are not groundbreaking. The call for their implementation exists within Jamaica's Task Force on Education Reform Report (2004) particularly in the sections that recommend improvement strategies for curriculum, teaching and learning.

Finally, I believe that community college education in Jamaica is an underrepresented source of higher education in proportion to the size of Jamaica's population, particularly the age 18-24 cohort. An expanded community college sector and attractive vocational and apprenticeship programmes might provide many more post-secondary options for Jamaican high school graduates. The University Council of Jamaica's (UCJ) list of recognized institutions and programmes, at first glance may appear to be quite lengthy and fairly extensive. However, upon closer examination, it appears that the diversity of programmes and the capacity to accommodate students in particular study areas is not as impressive as may seem. For example, approximately 14 of the 68 (21%) University Council of Jamaica recognized higher education institutions and programmes focusing on teacher education, and another eight (12%) specialize in theology

([www.ucj.org.jm](http://www.ucj.org.jm)). In contrast to this is the presence of only five community colleges (7%) which offer a wider variety of educational choices in such fields as business studies, environment studies, information technology, computer servicing and electronics, management information systems, library technical studies, performing arts, clothing and fashion, architectural and construction technology, and hospitality and hotel management (The Council of Community Colleges: Corporate Plan 2010-2013). This creates an interesting situation in that approximately one third of the registered and accredited post-secondary programmes in Jamaica focus on preparing the citizen for either the classroom or the pulpit. Maybe this should come as no surprise given the significant purpose education and religion has served in maintaining social order and control in Jamaica's colonial society (Turner, 1987).

## Conclusion

The knowledge and understanding provided by the Jamaican student teachers who participated in this study has confirmed what I learned early during informal conversations with my past students; that is, teacher education may serve as a stepping-stone to do something else. The invaluable information provided by those who participated in this research has confirmed this and more. Their words have helped to explain and provide a deeper awareness of how education in a postcolonial/neoliberal context may not be equitable; yet, still be one of the best means of resisting and reversing this inequity. Their voices have also shed light on how youthfulness, the influence of others, high school credentials, and affordable and accessible higher education can play a significant role in determining future educational and occupational goals and aspirations. The insight provided by these student teachers has taken the discourse of "why teacher education" beyond merely the reasons that influenced their decision to enter or to become teachers. As result of their openness to share their thoughts, beliefs and experiences I now have a better understanding of what value and benefit the Jamaican student teacher can possibly obtain from teacher education. This enhanced understanding offers hope and optimism in that it implies that student teachers can benefit holistically from the teacher education experience in spite of their intentions to use teacher education as a "stepping-stone to do something else" or because they have limited desires to teach.

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## **The Universal Basic Education Policy (UBE) and the Right to Education in Rural Nigeria**

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**Abstract:** *The UBE policy is the product of Nigeria's commitments to international agreements on education and human rights on the aegis of the United Nations such as the Universal Declaration of Human rights (UDHR) Convention on the Rights of the Child (CRC), Education For All (EFA), and the Millennium Declaration Goals (MDGs) to mention a few. It stipulates that, "Basic education shall be universal, free and compulsory". The essence is to guarantee quality basic education for all. However, in the implementation of the UBE policy; the rural dwellers have been excluded. In addition, quality has not been assured. This paper discusses the UBE policy in relation to the education rights of the rural dwellers that constitute 70% of Nigeria's population. Finally, it suggests ways of realizing the objectives of the policy in rural Nigeria.*

**Keywords:** Basic Education, Human Rights, Rural, Policy

### **Introduction**

Education is a highly veritable commodity for the emergent global societies that no developing nation can continue to ignore because it is acknowledged as a major determinant of national development in all its ramifications. In fact, education has become a major determinant of living standards. Consequently; nations and individuals with limited or no access to the skills, knowledge and dispositions fostered by education will fall behind others in developmental strides. Hence the level of education, in terms of access to and quality is the mirror of the nation's level of development. In recognition of the fact that quality education is an indispensable resource that engineers and sustains national development, the United Nations declared education a human right. This implies that limited access to and or poor quality education are infractions of human rights of the victims.

Nigeria is a state party to international and regional instruments/laws on education. These include the Universal Declaration of Human Rights (UDHR), Convention against Discrimination in Education, Convention on the Elimination of All Forms of Discrimination against Women- CEDAW, Convention on the Rights of the Child – CRC, The African Union Charter on the Rights and Welfare of the Child, Copenhagen Declaration, Education for All-EFA initiative, Dakar Framework of Action and the Millennium Declaration (2000). In line with her commitments to these international and regional laws on education rights, Nigeria has embarked on various education reforms over the years. One of these reforms is the promulgation of the UBE Act of 2004. (NERDC).

The UBE policy guarantees basic education for all Nigerians irrespective of age, sex, ethnic origin and place of residence/location. The implementation of the UBE policy is yet to

actualize its goals; in fact, it has missed its targets. This is sustained by the recent revelation that over 10.5 million Nigerians of primary school age are out of school. Non school attendance is highest among the states in the North West and North East zones; 72% of primary age children never attended school in Bornu state. According to the US Embassy in Nigeria (2012) the factors influencing primary school drop-out are monetary cost (32%), Insufficient Interest (26%), Labour Needed (16%), Unlikely Able to Join Junior Secondary School (JSS) (9%), Unfavourable Distance (7%), Hard Enough Schooling (6%) and Poor Quality School (4%). In addition; is the failure of adult education programmes especially in the rural areas of Nigeria? The most recent National Literacy Survey reveals that literacy rate in the urban areas is 74.6 % versus 48.7% in the rural areas. Also in 17 out of 36 states and the Federal Capital Territory Abuja, the adult literacy rates range from 14.5% to 49.3% (NLS, 2010). This clearly shows that most of the illiterate and uneducated population are rural dwellers. It is also an indication of inequity of access to and that quality of basic education is not assured. These situations constitute infractions of the education rights of rural dwellers in Nigeria.

### **Context**

The Federal Republic of Nigeria comprises 36 states and the Federal Capital Territory, Abuja. These states are grouped into six geo-political zones for political expedience: North West, North East, North Central, South South, South West and South East. (Eme-Uche, 2010). There are 774 local government areas in Nigeria. (FGN, 1999). Nigeria is the most populous nation in sub-Saharan Africa with an estimated population of 168 million.70% of this population are rural dwellers.

Evidence from the Rural Poverty Report 2011 (IFAD, 2010) shows that rural poverty is very high in Africa (excluding North Africa). In Nigeria, poverty, illiteracy, disease and isolation characterize the rural areas. Socio – economic amenities are inadequate or not available in most of the locations. The dominant occupation of Nigeria’s rural dwellers is subsistence agriculture. This has its toll on the rural children because families are compelled by their circumstances to engage them in farm work and other income generating ventures. This has its implications for school enrollment, attendance, retention and the performance of the children at school. This situation is not peculiar to Nigeria and developing nations. It is also a feature of more developed nations like the United States of America where poverty equally ravages rural dwellers. O’Hare (2009) observes that poor children living in America face significant challenges just as their urban counterpart; but many problems are exacerbated by their isolation and limited access to support services that are common in urban areas.

### **Background to the Universal Basic Education Policy**

The first education reforms in Nigeria were initiated by the then Western Region and Eastern Region governments in 1955 and 1957 respectively. This was most expedient because of the need to revise the colonial education curriculum to make it responsive to the needs of the emergent nation, Nigeria. These efforts although ground breaking at that time, were limited in their scope of application and curriculum content. The first national and large scale initiative was the free Universal Primary Education scheme launched by President Obasanjo in 1976. It resulted to a phenomenal increase in access to education at all levels. At the basic education level, school enrollment moved up from 6million to 12 million (Essn, 1976). The UPE was free and universal. This was perhaps the world’s highest rate of education expansion, but also, it set in motion the greatest crisis in education in the country (Ukeje, 1998).

The identified constraints of the UPE policy were inadequate funding, poor infrastructural facilities, insufficient qualified teachers, poor planning, inaccurate data, poor supervision and monitoring of the programme (Denga, 2000; Ocho, 2005; Maduewesi, 2005). It is important to note that although the government declared the UPE scheme universal and free, schools imposed dues and levies for the provision, maintenance and/or improvement of facilities and services. These levies were, in some cases, higher than fees paid before the UPE scheme. In addition, parents and guardians assumed responsibilities for other school needs of their children/wards such as school uniform, shoes, text books, exercise books, transportation etc. These made the UPE scheme far from being free and limited to those who could pay the bills. Consequently, rural and urban poor children whose parents could not pay the bills were excluded. The UPE scheme provided six years of free primary education; however it was not compulsory. So the state did not assume responsibility for the education rights of the child. This was in contravention of Nigeria's commitments to the earlier mentioned international/regional education rights laws.

The UBE Act was promulgated in 2004, that is, 28 years after the UPE was launched. The state assumed full responsibility for the child's education hence the free and compulsory component of the Act. The UBE (2004) and the National Policy on Education-NPE (2004) are the instruments for the realization of the six EFA goals, Goal 2 of the MDGs—Universal Primary Education and the home grown National Economic Empowerment and Development Strategy (NEEDS) and the Vision 20, 20;20.

### **Education as a Human Right**

The indispensability of education in the fostering, protection and sustenance of the dignity of the human person is incontrovertible. This fact informed the collective efforts of the international community individually, at the state and corporately at the international/ regional levels on the aegis of international/regional bodies to guarantee unfettered access to basic education. The United Nations and its agencies have been in the forefront of this struggle. Nigeria is a signatory to significant international human rights laws /instruments on education rights that have and are still influencing education reforms in Nigeria. Nigeria is a state party to the following international /regional human rights laws that guarantee the right to basic education:

#### **A. Universal Declaration of Human Rights**

Article 26 states: (1) Everyone has the right to education; Education shall be free, at least, in the elementary and primary stage. Elementary education shall be compulsory.

#### **B. International Covenant on Economic, Social and Cultural Rights**

According to Article 13 (1) primary education shall be compulsory and available free to all.

#### **C. Convention against Discrimination in Education**

Articles 3 and 4 mandate State parties to undertake to discontinue any practice which involves discrimination in education and to make primary education compulsory and free.

#### **D. Convention on Elimination of all forms of Discrimination against Women (CEDAW)**

Articles 2, 5, 10 and 12 protect the education rights of women and the girl-child.

**E. The Convention on the Rights of the Child (CRC)**

Article 28 of this convention acknowledges the rights of the child to unlimited access to free and compulsory primary education.

**F. World Declaration on Education for All, (EFA)**

Article 1 and Preamble of EFA (1990) provide that Education is a fundamental human right of all people men and women of all ages throughout the world...

**G. Declaration and Program of Action of the World Summit for Social Development adopted during the UN Copenhagen World Summit**

Commitment 6 unequivocally stresses the commitment of State to the goals of universal and equitable access to quality education for all without any form of discrimination.

**H. The Dakar Framework of Action, Captioned Education for All: Meeting Our Collective Commitments adopted by the World Forum on Education.**

(i) Expanding and improving comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children;

(ii) ensuring that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to and complete, free and compulsory primary education of good quality.

**I. Millennium Declaration OF 2000: Goal two is the eradication of illiteracy through compulsory free basic education.**

**J. African Union Charter on the Rights and Welfare of the Child-1990 guarantees every child's right to education.**

**K. ILO Convention 182 on Age Employment and ILO Convention 138 on Elimination of Worse Forms of Labour**

Nigeria is a signatory to the above instruments on education rights. They have had tremendous impact on the education policies of the Nigerian state. Policies and actions of government taken to safeguard education rights include;

Constitutional Provisions: In chapter 11 of the 1999 constitution is on the Fundamental Objectives and Directive Principles of State Policy clearly state Nigeria's educational objectives in section 18 thus:

1. Government should direct its policies towards ensuring that there are equal and adequate education opportunities at all levels.
2. Government shall strive to eradicate illiteracy; and to this end government shall as and when practicable provide...
  - (a) Free compulsory and universal primary education.

**National Policy on Education –NPE (2004)**

The need for a National Policy on Education (NPE) came to the fore after the National Curriculum Conference of 1969. A follow up seminar on the conference was convened in 1973 with the mandate of fashioning a national policy on education for Nigeria. The recommendations

of the seminar were adopted as the National Policy on Education for Nigeria, which was published in 1976. It was revised in 1981, 1998 and 2004. The revisions were necessitated by policy changes and the need to upgrade the policy in line with national objectives. Sec. 3(15) of the NPE (2004) provides that ...basic education shall be of 9-year minimum duration comprising of 6 years of primary education and 3 years of Junior Secondary Education. It shall be free and compulsory.

However, the process of the review of the NPE (2004) initiated by the National Council of Education (NCE), which is the highest education policy making body in Nigeria, is on-going. The NCE has mandated the Nigerian Educational Research and Development Council (NERDC) to review the curriculum content of the NPE to accommodate the 9 years basic education policy, new issues like the HIV/AIDS and to make it relevant to national economic reforms initiatives such as National Economic Empowerment and Development Strategy (NEEDS).

### **The Child Rights Act of 2003**

The Child Rights Act of 2003 is a product of the domestication of the United Nation's Convention on the Rights of the Child (UNCRC) and the AU Charter on the Rights and Welfare of the African child. This Act guarantees unlimited access of any Nigerian child to compulsory, free and Universal Basic education. It also protects the child from discrimination and exploitation. (UNICEF, 2007).

### **Universal Basic Education Act – 2004**

The UBE Act is an educational reform policy of the Federal Government of Nigeria with the goal of increased access and to assure quality. The Vision of the UBE is:

At the end of 9 years of continuous education, every child through the system should be acquire appropriate level of literacy, numeracy .communication, manipulative and life skills and be employable, useful to himself and the society at large by possessing relevant ethical, moral and civic skills.

The objectives of the UBE:

1. Developing in the entire citizenry a strong consciousness for education and a commitment to its vigorous promotion
2. The provision of free, universal basic education for every Nigerian child of school-going age
3. Reducing drastically the incidence of drop-out from the formal school system (through improved relevance, quality, and efficiency)
4. Catering for the learning needs of young persons, who for one reason or another, have had to interrupt their schooling, through appropriate approaches to the provision and promotion of basic education
5. Ensuring the acquisition of the appropriate levels of literacy, numeracy, manipulative, communicative and life skills, as well as the ethical, moral and civic values needed for laying a solid foundation for lifelong learning (Obanya, 2010 p. 12)

In line with the UBE Act, government established the UBE Commission headed by an Executive Secretary. UBE Boards were set up at the State and Local Government levels. The agencies comprise the administrative machinery for the implementation and supervision of the UBE Scheme in conjunction with the federal and state ministries of education and state education Boards.

There is also the Vision 20, 20:20; its goal in the education sector is to ensure that all children irrespective of ethnicity, gender, or disability, complete a full course of basic education which is 12 years of formal education comprising 3 years pre-primary, 6 years primary and 3 years Junior Secondary School.

### **UBE Policy in Rural Nigeria**

The UBE policy like its precursor has been besieged with daunting problems in the implementation stage generally. Rural education is fraught with many challenges; the most critical being environmental, pupil and teacher related issues. These challenges have direct impact on access, quality of education and consequently the realization of the UBE and education rights in rural Nigeria. Eme-Uche (2008) classified the barriers to the education rights of the child into (a) factor that hinder schooling and (b) factors that hinder the realization of the NPE (2004) and the UBE (2004). The identified factors that hinder access to schooling include social-economic, cultural and religious; while the factors that hinder the realization of the objectives of the NPE (2004) and the UBE (2004) are curriculum issues, teacher related factors, poor planning, lack of political will to enforce the education rights of the child and poor quality education. These problems persist and continually impinge on the right to education but the situation is further exacerbated in the rural areas of Nigeria due to the obvious character of the rural populace and the rural areas of Nigeria. To better appreciate the barriers to the realization of the education rights the rural populace; it will be discussed with the EFA goals and the UBE (2004) which are the instruments for their realization in Nigeria in view.

The National Action Plan (NAP) of UBE and its targets ensure that access to basic education is achieved by 2015, through the following strategies:

- ensuring that by 2009, 100% of all children of official school age (6-11) including girls are enrolled full-time in primary school or in an equivalent education programme;
- ensuring that by 2015, all children, girls as well as boys of primary school age, are enrolled in primary school or its equivalent;
- improving the school completion rate by 30% to an overall rate of over 90% of those in primary schools by 2010;
- increasing by 50% in 2010 the number of children with disabilities to be mainstreamed into primary school;
- ensuring the achievement of 90% transition rate from primary to junior secondary school;
- ensuring that by 2015, 80% of children up to the age of fifteen are enrolled in school or in an equivalent education programme; and
- reducing by 80% in 2015, the percentage of working children of school age, as well providing those children still working, access to relevant basic education.

None of the targets of the UBE Plan of Action has been and would likely be met by 2015 in Nigeria giving the status of education in Nigeria as documented in the EFA Global Monitoring Reports on Nigeria (2009-2013). The rural education sector is at a higher risk of realizing these afore stated targets which are benchmarks for education rights.

Goal One of the six EFA goals states: Expand and improve early childhood education care. Early childhood care and education was the theme of 2007 EFA Global Monitoring Report. Section 14 (a) of the NPE makes the provision of pre-primary education the responsibility of

government and community and private organizations. However this all important level of education has been left to private proprietors. This has limited access of poor rural children to this stage of basic education .this situation is replicated in Tanzania where rural classes have larger groups and less qualified teachers, this is irrespective of the national educational policy that specifies the same standards for pre-primary education regardless location. The value of pre-primary school enrollment was 13.91% as at 2010.(UNESCO,2010).This situation has persisted. The EFA (2012) notes that participation in pre-primary education is low and inequitable with the sub-Saharan Africa recording the lowest enrollment of 17% only; with Nigeria at 14% which is below the sub-regional average. According to EFA (2012) about two out of three children from the richest 20% of households attend pre-school, compared with less than one in ten from the poorest 20% of households. This neglect of pre-school level by the government has serious implications for standards and quality of teaching at this level; and consequently, the implementation of the UBE policy in rural Nigeria.

EFA Goal 2, MDGs Goal 2, and UBE provide free and compulsory Universal Primary Education by 2015. Unfortunately; with only a few days to the EFA target of 2015 for attaining universal primary education, Nigeria is not likely to realize it. Since 1999, the number of out of school children has increased from 7.4 to 10.5 million. The primary net enrollment has fallen in Nigeria, from 61% of children of primary school age in school in 1999 to 58% in 2010. (UNESCO, 2012). This is more so in the rural areas of Nigeria where poverty and many years of neglect has made education unattractive to the rural populace. Irrespective of the fact that the UBE policy makes education free and compulsory, it has not been enforced in reality; 58% of girls from poor rural household have not had the chance to go to school. (ibid). Also; the hidden costs of schooling makes education beyond the reach of the rural poor. Parents are required to pay for books, levies, examination, sports, and Parents Teachers Association (PTA) fees to mention a few of them. This situation limits access to education; and principally, account for the low enrollment in rural schools. In effect; the children of the poor rural dwellers are denied their education rights in the context of the UBE because their parent's inability to pay service fees. All efforts by the government to check this trend have been ignored because the schools argue that the government does not provide the material resources needed for the teachers and students in teaching and learning. This is also a product of inadequate funding of education. Education budgets have been a far cry from the 26% of national budget recommended by the UNESCO. This informs Otive's (2007) submission that the greatest challenge facing education is inadequate funding by federal, states and local governments.

This brings to the fore the issue of rural poverty and education rights. It is very apt to interrogate the connect between the UBE policy, poverty and education rights in rural Nigeria. School age children in the rural areas of Nigeria are fully engaged by their families in farm work and other income generating ventures to augment family income for basic necessities of life. This affects school enrollment, attendance and completion of basic education.

Nigeria is a signatory to the CRC and all ILO conventions on child labour that classify all forms of labour that limit the child's access to education as exploitative child labour. The UBE policy makes education free and compulsory, and thus attracts sanction. This brings to the fore the issue of enforcement of the UBE policy. This paper argues that rural poverty is a major snag to the realization of the UBE policy in rural Nigeria. In view of this scenario it is apt to ask if the children of the poor rural dwellers can be exempt from exploitative labour. This makes the

enforcement of sanctions for exploitative child labour by rural dwellers. In view of this scenario, none of the objectives of the UBE policy's goals is attainable in rural Nigeria. This implies gross infractions of education rights of rural dwellers.

Goal three of EFA stresses equitable access to learning and life skills programmes; but this has not been the case. The rural areas have been excluded from adults learning programmes, this account for the huge gap in literacy rates between the urban and rural areas with 74.6% against 48.7% respectively. In cases where they have been provided, the populace do not patronize them because of lack of awareness of the import and existence of the programmes (Eme-Uche, 2010) as evidenced by the NLS(2010) that revealed that only 500,000 of the 4 million illiterates are enrolled in literacy programmes. There are also 3.5 million nomadic school-aged children with only 450,000 of them accessing any form of schooling; most of the programmes are urban based; this automatically excludes the rural dwellers. This is more so because irrelevance of the school curriculum to the needs and aspirations of rural dwellers. Ismail (2007) suggest that curriculum content of schools is too foreign for the pastoralists. Instead of teaching pastoral procedures, formal schools spend more time teaching history and cultures the pastoralists do not about and do not have interest in. In the same vein, MulHall (2001) observes that rural schools rarely adapt the curriculum to local needs. THE rejection of formal schooling by sections or groups in Nigeria is anchored in the belief that schools are agencies for acculturation that alienate young people and children from their religious, and cultural beliefs/practices. Access has been also hindered by gender discrimination against the girl child and women in education.

Goal 4 of EFA is on achieving 51% in adult literacy rates and is in tandem with one of the objectives of the UBE policy on ensuring the acquisition of the appropriate levels of literacy, numeracy, manipulative, communicative and life skills, as well as the ethical, moral and civic values needed for laying a solid foundation for lifelong learning. Realizing this goal is largely dependent on EFA Goal three on equitable access. Literacy rates in rural areas of 48.7% are lower than the 51% EFA benchmark by the 2015. It is important to note the huge regional disparities with a range of 92% (Lagos) to 14.5% in Bornu (NLS, 2010). This is a pointer to limited access to and quality of basic education in the rural areas of Nigeria. It is important to note in Nigeria, 17 out of the 36 states are at risk of achieving Goal 4 of the MDGs because of the high incidence of adult illiterate persons in the rural communities. This has adverse effects on rural education; school children do not have the support they require from their parents to well in their school work and assignments. Hence the education rights of the rural dwellers as in NPE (2004) and UBE Act (2004) are not guaranteed in rural Nigeria.

The fifth EFA goal is the elimination of gender disparities. This is a major barrier to education rights in rural Nigeria. The rural populace of Nigeria still has strong ties to cultural and religious practices that discriminate against the girl-child and women generally. Prominent if the culture of male preference that is further exacerbated in the context of rural poverty. In cases where resources are meager, the girl-child is withdrawn from school to engage in income generating ventures while the boy-child, that is, the future bread winner of the family, is allowed to continue his education. Girls are also the victims of gender bias division of labour. Obanya (2003) notes that household chores tend to be the exclusive preserve of the girl-child and this affects the willingness to send girls to school and the capacity of girls to cope with school work.

Investing in girls' education is also considered a waste of limited family resources by these rural dwellers since the girls eventually get married and leave the family.

Cultural and religious beliefs and practices also sustain gender disparities in education with the girl-child and women at a disadvantage; especially in the northern states of Nigeria. They include girl-child betrothal, early marriage, confinement and restriction of the movement of girls/women and abysmally low status of women in general. All these acts that have been defended along cultural and religious lines constitute infractions of all international human and education rights laws of the victims and, specifically, limit the realization of the UBE policy in rural Nigeria.

EFA Goal 6 is on improving all aspects of the quality of education. The quality of education is the product of the inputs made. This relates to the school environment in terms of facilities and instructional resources that are readily available for teaching and learning; human resources that comprise the availability of well-motivated quality teachers, support staff, caliber of school leadership, the administrative and regulatory systems. All these inputs are largely dependent on funding.

Even though the funding of the basic education system has been inadequate, these funds have been misappropriated by responsible government officials. The former Minister for Education, Dr. Obiageli Ezekwesili alleged that some state governors divert UBE funds earmarked for teacher recruitment to argument teacher shortages to other purposes like election campaigns (Olufowobi, 2013). Also is the inability of state governments to access UBE fund is a major setback in the implementation of the UBE policy. According to the Minister of State for Education, Barr Wike:

States have not accessed N41 billion for the UBE scheme. Nothing can justify the situation where billions of naira meant to expand access and improve the quality of basic education delivery are deliberately left un-accessed and, therefore, un-utilized, while the problems facing effective basic education deliver continue to stare at us as a nation (Laide, 2014).

The impact of inadequate funding of education is most critical in the rural areas of Nigeria. It manifests as poor learning environment, poor working conditions for teachers, inadequate supply and poor quality instructional resources, teacher shortages and retention r to mention a few. This state of education in the rural Nigeria is a challenge to the realization of education rights in rural Nigeria.

The quality of teachers largely determines the quality of education. In acknowledgement of this fact, the 2013/2014 EFA Global Monitoring Report warns that without attracting and adequately training teachers; the learning crisis will last several generations and hit the disadvantaged hardest. (UNESCO,2013).According to the UBE Act; the minimum teacher qualification at the basic education level is the Nigeria Certificate in Education (N.C.E); this qualification requirement has not been strictly complied with in the rural areas because of teacher shortages. The quality of teacher training is the most significant determinant of teacher quality and the need to interrogate the process cannot be over emphasized. Schools in urban areas usually have more and better qualified teachers than are necessary to the detriment of schools in

rural areas. The statistics from Kwara State Annual School Census Report (CSACEFA, 2013) on teacher deployment issues are very revealing.

- Six urban Local Government Areas with 90,582 pupils (45.4% of pupils in the state) have 50.2% of teachers in the state.
- In rural schools pupil teacher ratio (PTR) is as high as e.g.123 in Baruten, 126 in OkeEro, 133 in Ekiti, 195 in Kalama, and 200 in Patigi.
- In urban schools, the maximum PTR is 64, with average PTR as low as, for instance, 13 in Ilorin South, and 16 in Ilorin East.

The above situation is peculiar to many states of Nigeria. The implications of high level of teacher absenteeism on the quality of teaching and learning are enormous. UNICEF (2012) records that a 5% increase in teacher absence rates reduced average learning gains over the course of an academic year by 4% to 8%. In addition, it has resulted to poor school attendance and some rural dwellers have withdrawn their children from schools. High absenteeism recorded by teachers of rural schools is due to lack of commitment to work because of abysmal working conditions and the rejection of postings to rural areas because of the poor living conditions and social exclusion of rural Nigeria. This brings to the fore teacher deployment issues that must be addressed to guarantee retention of teachers in the rural communities of Nigeria.

Insecurity and the accompanying violence have become intractable challenges to the education rights of rural dwellers. The theme of the 2011 EFA Global Monitoring Report is “Armed Conflict and Education: The Impact of conflicts on Education Systems.” The violent conflicts occasioned by the Boko Haram insurgency on the Northern zones of Nigeria have had devastating effect on the education system. Security officials said the militant Boko Haram group had shot or burned to death at least 29 pupils in a boarding school in Buni Ladi in Yobe State, North East Nigeria. However, a journalist who counted bodies in the morgue after the attack put the figure at 59 (Ola, 2014). Yobe state authorities said in October that Boko Haram had razed 209 schools, causing damage worth an estimated \$15.6 million (11.4 million euros) (AFP, 2014). The climax is the kidnap of over 200 girls from the Government Girls School, Chibok, Borno State. Schools have remained closed in these areas with parents and teachers reluctant to send their children to school due to insurgency and the consequent insecurity of the lives, especially with school children and their teacher being the target.

Boko Haram, which translates roughly from Hausa as “Western education is sin”, rejects a so-called Western curriculum. Sequel to the above, Bornu and Yobe States governments have been compelled to close down school even though these states account for majority of the out of school children before the insurgence. Consequently children have been withdrawn from schools and a sharp drop in enrollment. Most of these atrocities are committed in the rural areas and they jeopardize the education rights of rural dwellers.

### **Summary and Conclusion**

Nigeria is a signatory to the international legal instruments on education. The UBE policy is in tandem with Nigeria’s commitment as a state party to these instruments that declare education a human right. The NPE and UBE Act guarantee education rights of Nigerian children and are the legal instruments for the realization of the EFA goals and MDGs in Nigeria. Despite these efforts by the various governments, Nigeria is still a member of the E9 counties with 10.5million school age children are out of school; this account for 10% of the global total.

Majority of these out of school children are located in the rural areas of Nigeria. The realization of education rights of rural dwellers in the context of the UBE policy has been hindered by seemingly intractable challenges of rural education such as inadequate funding, exclusion of the rural areas, teacher deployment issues, irrelevance of curriculum to the needs of the rural dwellers, quality of education, hidden costs and opportunity costs of schooling, cultural and religious beliefs/ practices, excruciating rural poverty and security challenges. These challenges account for low enrollment, retention and completion at the basic education level, the regional disparity in the literacy rates between the urban and in the rural areas. This situation would continue to jeopardize the implementation of the UBE policy and education rights in rural Nigeria if drastic actions are not taken by government to reverse them.

### **Recommendations**

The strategies or actions to be taken by all stakeholders in education to guarantee education rights of rural dwellers in the context of the UBE policy constitute a research topic. However; this paper will outline some of them. In view of the identified challenges to the education rights of rural dwellers, these recommendations seek to direct attention to their root causes. They include: the alleviation of rural poverty and the development of the rural communities of Nigeria, mass mobilization and re-orientation of rural dwellers on cultural and religious beliefs that hinder education rights, reduce the costs of schooling, enforcement of laws and actions that guarantee education rights of rural dwellers, teacher training and deployment issues, curriculum issues, security and adequate funding of rural education.

Rural poverty is fundamental to the infraction of education rights of rural dwellers. Government should ensure the alleviation of rural poverty. Unfortunately the poverty alleviation programmes of government have not positively impacted the lives of rural dwellers most of whom still wallow in abject poverty. Enhanced economic status of rural dwellers will free children and youths from all forms of labour that hinder access to basic education. This may include school for food programme and paying families to release their children to school. As part of the efforts to address low enrolment in schools other incentives. The Bornu state government has offered money to parents/guardians that send their children and wards to school (Ibrahim, 2013).

Closely related to alleviation of rural poverty is the development of rural communities by providing basic socio-economic facilities like pipe borne water, electricity, good roads to open up the rural areas, modern schools and housing for students and teachers and hospitals. This will the rural areas more attractive and help in the retention of pupils and teachers. Due to illiteracy rural dwellers are still glued to religious and cultural values that hinder access to education. Mass mobilization and value re-orientation of rural dwellers to make them appreciate the benefits of education will have far reaching effect on the education rights of rural dwellers, especially in the area of discrimination against the girl child and women.

According to the UBE Act; basic education is free. This has to be enforced by removing all the hidden costs of schooling that make schooling too expensive for rural dwellers. The need to enforce all the laws that guarantee basic education cannot be over emphasized. These include the domestication and enforcement of all international/regional human and education rights instrument and the national laws. This can only be realistic if rural poverty is alleviated.

Teacher quality is the product of teacher training. The teacher training programmes should be reviewed to provide for specialized programmes on teaching in rural areas. This will make this class of highly qualified teachers readily available for deployment in rural areas thereby solving the twin problems of teacher quality and retention in rural Nigeria. The school curriculum of the rural areas should be relevant to their needs and age appropriate to engage the interest of rural dwellers in schooling. Security of students and their teachers is a major challenge to the realization of education rights in rural Nigeria. Parents will not send their children to school if they query their security. Government should ensure all attacks on schools and other educational institutions are checked and school children protected in schools.

Underscoring all the above recommendation is the adequate funding of rural education. The ministries of education, the local government education boards and the UBE Commission should ensure that funds released for schools are properly accounted for. The issue of misappropriation and stealing of rural education funds by government officials, government agencies and state governors should be checked by the appropriate government bodies.

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## Effects of Self-Explanation Reading Training (SERT) on Second Language Learners' Comprehension of Expository and Narrative Text

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**Abstract:** *Reading research in Nigeria indicates that poor reading comprehension directly or indirectly affects students' performance in various school subjects. Thus, this research study investigated the effect of self-explanation reading training strategy on second language learners' comprehension of expository and narrative texts. The study adopted a pretest, posttest control group, quasi-experimental design. Random sampling procedure was adopted in selecting 3 intact classes each from 3 senior secondary schools in Abeokuta Metropolis, for the study. The study also determined the interaction effect of verbal ability on students' comprehension of texts. Descriptive and inferential statistics were adopted in analyzing the data collected. The result indicated that there was a significant difference in the pretest, posttest mean score of students exposed to treatment  $F(2,124) = 51.348$   $p < 0.05$ . Students in the 2 self-explanation groups 1 (Science) and 1 (Art class) obtained the highest posttest mean achievement scores ( $\bar{X} = 16.77$  and  $\bar{X} = 10.21$ ) respectively compared to control ( $\bar{X} = 7.23$ ). Hence, SERT enhanced students' comprehension of text.*

**Keywords** Self-explanation Reading Training, Second language, Comprehension, Narrative and Expository texts.

### Introduction

Reading comprehension is usually explained from different perspectives because it means different things to different people. It involves different cognitive, intellectual and social based skills and activities through which learners attempt to interact, interpret, construct, reconstruct and negotiate meaning from the text with a view to utilizing the information in solving human problems. Comprehension involves interweaving of information-new versus old- and the learner is expected to distinguish from this array of information and make meaning from the text. According to Kendeou, van den Broek, White and Lynch (2007), a common component of comprehension is interpretation of the information in the text, the use of prior knowledge to interpret this information and the ultimate construction of coherent representation or picture in the reader's mind of the text read. Luke, Woods and Dooley (2011) describe comprehension as a cognitive but social and intellectual phenomenon; hence narrow understanding of comprehension is insufficient for literacy education of diverse and marginalized learners. Certain individuals and groups' risk factors have been identified as influencing comprehension outcomes such as disrupted or abnormal development, home language other than English or non-standard dialect, low socio-economic status, poor school attendance, underprivileged literacy environment' (Luke, Woods & Dooley, 2011)

A greater percentage of students in Nigerian schools attend government public schools with diverse students' population. Greater percentage of these students fall within the category of students referred to as struggling readers characterized by poor school attendance, low socioeconomic background, poor linguistic background and poor learning environment at home and in school; most often they do not have access to robust and enriched reading materials. From among these students also, are the highest number of school dropouts and total lack of motivation for school related tasks. Thus, they are generally ill-disposed towards schooling and reading. Even when they read, they barely comprehend. This explains current emphasis in reading research on the comprehension of texts involving higher order cognitive processes. Singer (1991) cited in Lawal (1997) noted that teaching should go beyond 'no instruction in comprehension to multiple strategies for the development of comprehension and teaching students to be active in learning from print'. Comprehension involves the integration of knowledge of facts presented in the text and learners' rich repertoire of background experience to effectively extract, construct, reconstruct and negotiate meanings in the text read at both the literal, inferential and critical/evaluative levels. However, reading comprehension instruction as conceived and implemented by teachers in most Nigerian schools is worrisome because teachers focus is on testing rather than teaching comprehension skills (Onukaogu, 2002); the testing is even lopsided in favour of mere literal questions thrust upon students to test their oral reading and comprehension (Adegbite, 2005)

Effective instruction in reading comprehension involves the inculcation of strategic reading skills in learners so that as they read, they are able to 'integrate previous knowledge with current information, think about what is being read, monitor what is being read, utilize graphic information, apply what has been read to problem solving and connect their writing with their reading' (Caverly Mandeville & Nicholson, 1995 in Onukaogu, 2002). Research has shown that the use of strategy during reading is an important determinant of reading comprehension Dessus, Blanco, Nardy, Toffa, Dascalu, and Trausan-Matu (2012) and that students who are good comprehenders are strategic readers (Graesser, 2007). Teaching general learning strategies is very crucial because it helps learners to improve self-efficacy (McNamara, Levinstein, & Boonthum, 2004) and students who have a storehouse of strategies to draw from while reading consciously or unconsciously monitor their own learning and do better than students who do not have such strategies (Chamot & O'Malley, 1994). Therefore, the reading comprehension teacher is expected to provide learners with systematic organized activities (at the various stages of reading) to motivate and assist them to read and comprehends the text (Lawal, 1997).

Studies indicate that strategies directed at improving reading comprehension have been found to be effective (Rosenshine, Meister & Chapman, 1996; Afassi, 2004, Tracy & Morrow, 2006; Cromley & Azevedo, 2007) One of these strategies in current reading research is self-explanation, described as the process of explaining the meaning of text to one's self while reading (Chi, de Leeuw, Chiu & La Vancher, 1994). One of the benefits of self-explanation is that it encourages students to revise their current understanding of concepts by prompting them to compare their inaccurate and/or incomplete understandings with those presented in the text. Therefore, as they attempt to reduce inconsistencies between existing knowledge structure and new information, new leanings occur (Ainsworth & Burchan, 2007). It has also been described as a versatile strategy, which can be used individually or as group processing to enhance learning across a variety of instructional tasks. Hence Chin and Brown (2000) noted that self-explanation can be used across levels, primary to post secondary. Thus, besides the teacher or expert tutor,

peers can also encourage each other to generate self-explanation, especially in cooperative learning environments.

Self-explanation is a constructive activity. At the heart of constructive learning theory is the belief that learning occurs by connecting new knowledge to previously learned knowledge. Each learner individually and socially constructs meaning as she/he learns. Learners are not expected to regurgitate and recite what they have been told, heard or read about, they have to reflect and construct their own personal meanings and take control of their learning (Hein, 1991).

Understanding within the constructivist philosophy cannot be extracted from a text and put into a reader's head, nor can it be delivered to a learner, instead understanding involves being able to explain information being learnt, connect it to previous knowledge and use the information subsequently (Beck, MacKeown, Hammilton & Kukan, 1997).

Based on the concept of self-explanation, McNamara (2004) developed a reading comprehension strategy called self-explanation reading training (SERT), which integrates various reading comprehension techniques categorized as comprehension monitoring, paraphrasing, elaboration, prediction and bridging. Comprehension monitoring is being aware of how well one understands while reading. This skill helps learners to recognize when there is a failure in understanding. This awareness will trigger the use of other 'active reading strategies' beginning with paraphrasing. Paraphrasing is a sentence focused processing that involves restating the current sentence into the reader's own words to enable the readers to understand the grammar and vocabulary of the sentences. This is followed by bridging, a knowledge building skill that enables the readers to link the content of the sentence to the material previously read in the text. At this stage the reader makes inferences that would assist him/her to form global mental picture or representation of the content. This will then lead the reader to make prediction of what to expect next either by guessing or reminding oneself to be on the lookout for particular items that will aid comprehension. The reader goes beyond making inferences to elaborate by associating current reading with prior knowledge gained from sources other than the current text. In elaboration, the reader attempts to link current information from the text to other information the reader already knows. The reader does this using content domain general knowledge, logic or where the reader lacks sufficient background knowledge of the text, the reader can apply common sense.

SERT has been implemented with different levels of students within laboratory and formal classroom context with promising results. For instance, SERT is found to be more effective in improving college students' comprehension than conventional teaching method (McNamara 2004; Magliano, 2005). It has also been found to be more effective when compared with two other strategies in improving comprehension of high school students (O'Reilly, Best and McNamara, 2004); It is also known to have had positive effects on students with low comprehension or low reading skill (O'Reilly, Best & McNamara, 2004). On the other hand McNamara, O'Reilly, Rowe, Boonthum and Levinstein (2007); and McNamara, Levinstein and Boonthum (2004) experimented with iSTART (Web-based version of SERT) and found that iSTART was beneficial in enhancing the comprehension of both college and high school students. Thus, McNamara et al. (2007) concluded that SERT has been successful in improving students' text comprehension, and the effect of the training seems to be more evident for those who need it most.

Due to the huge success of SERT in enhancing students' reading comprehension skills as indicated in literature, it is believed that exposing second language learners' in Nigeria to strategic reading instruction such as SERT is necessary due to the nature of most Nigerian classrooms characterized by large classes and diverse students' backgrounds (linguistic and socio-economic backgrounds, ability levels and poor learning environment). This situation poses great challenges to the teacher in terms of giving individualized instruction and promoting active student engagement in reading. Thus, this study examines the effects of self-explanation reading training (SERT) on second language learners' comprehension of Narrative and expository texts. It also determines the moderating effect of verbal ability on students' achievement.

### **Statement of Problem**

Reading comprehension in Nigeria has been highly misconstrued both in terms of conception and practice. Students are not taught to acquire effective comprehension skills or trained in strategies that will assist them to read and comprehend text. Instead emphasis is on testing comprehension because it is believed students can learn reading skills by mere exposure to the text. Hence students turn out to be poor comprehenders without knowledge of strategic reading skills to use while reading various types of texts. This study examined the effects of self-explanation reading training (SERT) on second language learners; comprehension of Narrative and expository texts. It also determined the moderating effect of verbal ability on students' achievement.

### **Hypotheses**

The following hypotheses were formulated for this study:

**HO<sub>1</sub>:** There is no significant difference in the mean posttest achievement scores of students according to treatment and control.

**HO<sub>2</sub>:** There is no significant difference in the mean posttest achievement scores of students according to treatment and verbal ability

**HO<sub>3</sub>:** There is no significant difference in the mean posttest achievement scores of students according to text type.

**HO<sub>4</sub>** There is no significant difference in the mean posttest achievement scores of students according to treatment, verbal ability and text type.

### **Methodology**

This study employed a pretest, posttest non randomized control group quasi experimental research design using intact classes. The population of the study comprised all the senior secondary schools in Abeokuta Metropolis. A multi-stage sampling technique was adopted in the study. First, three senior secondary schools were purposively selected from all the schools within the metropolis. Purposive sampling was adopted to ensure that students in both the high performing and the low performing schools were given equal opportunity of being selected. Secondly, a random sampling technique by balloting was used to select an intact class from each of the three schools as well as in assigning treatment to the intact classes selected.

The instruments for the study were:

- (i) Achievement test on Reading Comprehension (ATRC)
- (ii) Verbal Ability Test (VAT)

The ATRC comprises two expository and two narrative passages selected from the past reading comprehension passages used for the West African Examination Council. Twelve short essay type questions were drawn from each of the passages. The questions were both text-based and inference-based requiring that students employ their skills of elaboration to apply their prior knowledge to providing answers to the questions. For the purpose of validation, the achievement test was prior tested on a set of forty (40) senior secondary II students in a different school using test-retest procedure within two weeks interval to ascertain the reliability of the instrument. The scores of the two different tests were correlated using Pearson Product Moment Correlation. A reliability index of 0.76 was obtained. Secondly, VAT which comprises 36 item test adapted from the Australian Council for Educational Research (ACER) test had earlier been validated. However, the version used for the present study was revalidated by Ezenandu (2012) using Kuder Richardson (K21) formula and 0.82 was obtained. Data collected were analyzed using descriptive and inferential statistics. Analysis of Covariance (ANCOVA) was employed using pretest scores as covariates while the Multiple Classification Analysis (MCA) was used to find out the magnitude and direction of differences among the groups. The hypotheses were tested at  $p < 0.05$  level of significance.

### **Treatment Procedure**

The study lasted for a period of six weeks and was conducted during regular classroom time. In the first week of the study, students were administered pretests on the ATRC and VAT. Students in the two experimental groups were trained to self-explain the text they were exposed to read while students in the control were not given the same training. They were merely asked to study the same reading passages. The study adopted McNamara (2004) training formula involving three stages: Introduction, Demonstration and Practice.

**Stage 1:** This is the introduction stage; here the teacher explained the meaning of SERT to students with relevant examples. Then the teacher introduced and explained the strategies students were expected to apply as they self-explain what they read. The strategies include: comprehension monitoring, paraphrase, bridging inferences, logic, common sense and elaboration.

**Stage 2:** The teacher demonstrated how self-explanation could be applied. During the demonstration, the teacher exposed students to sample expository and narrative comprehension passages selected from the Senior Secondary School *Intensive English* Course Book II. The demonstration activities that the teacher launched the students into include:

- (i) The teacher models self-explanation to students
- (ii) The teacher and the students brainstormed in whole class setting.
- (iii) Expert student modeling. The teacher invited students who have mastered the concept to model it to the entire class.
- (iv) Teacher and students brainstormed in whole class setting for the second time. This is to prompt discussion on issues raised that students were not quite cleared about.
- (v) Then five students were grouped around one expert student, who models the skill to other group members.
- (vi) The students come back together in a whole class discussion of the concept and its application.

**Stage 3:** Finally, students were paired to read a given passage. In pairs, they took turns to read, self-explain and summarize the text. At the end of the training, students were once again administered the posttest in ATRC and VAT.

### Results of Findings

The results are presented in order of the hypotheses formulated.

**HO<sub>1</sub>:** There is no significant difference in the posttest mean achievement scores of students according to treatment.

**Table 1: Summary of ANCOVA Posttest Achievement Scores of Students by Treatment, Verbal Ability and Text type**

Source of Variance	Sum of Square	Df	Mean Square	F	Sig.
Covariates PREACH	13400.741	1	13400.741	817.489	.000
Main effects (Combined)	5059.580	49	103.257	6.299	.000
Treatment	1683.453	2	841.726	51.348	.000*
Verbal Ability	206.191	2	103.095	6.289	.003
Text type	1173.109	10	117.311	7.156	.000*
2 way interaction					
Treatment*Verbal Ab.	95.805	4	23.951	1.461	.218
Treatment* Text type	601.234	10	60.123	3.668	.000*
Verbal Ability *Text type	173.728	10	17.373	1.060	.398
3 way interaction					
Treatment*Verbal Ability*Text type	677.540	10	67.754	4.133	.000*
Model	7092.259	173			
Residual	2032.678	124	16.393		
TOTAL	20493.000	174			

\*Significant at  $p < 0.05$

Table 1 indicates that there is a significant difference in the posttest mean achievement scores of students who were exposed to treatment  $F(2,124) = 51.348$   $p < 0.05$ . Hence hypothesis 1 is rejected. Table 1 also indicates that there was a significant difference in the mean posttest achievement scores of the students with regards to text type (narrative and expository). This means that there is a significant difference in the scores of students based on the type of text. To ascertain the magnitude of difference, students obtained the highest mean score ( $\bar{x} = 5.68$ ) in expository text compared with the narrative text ( $\bar{x} = 2.13$ ), implying that self-explanation reading training was more effective in reading expository texts than narrative.

**Table 2: Multiple Classification Analysis (MCA) of Posttest Achievement Scores of Students by Treatment, Verbal Ability and Text type**

Treatment category	N	Predicted Mean		Deviation		Eta	Adjusted for Beta factors and Covariates	
		Unadjusted	Adjusted for Factors & Covariates	Unadjusted				
Treatment								
Trt Grp. 1:	56	13.475	16.77	1.18		.78		.743
Trt Grp 2:	52	9.647	10.21	1.41	.545	.69		
Control	66	5.202	7.231	-3.22		.95		
V. Ability								
Low	114	9.554	10.22	-3.21	.222	.66		.021
Med	42	8.881	9.49	-3.42		.31		
High	18	6.556	8.88	-2.57		.09		
Text type								
Narrative	174	66	2.13	-.50	.047	1.75		
Expository	174	66	5.68	.50		1.37		
R = .316								
R <sup>2</sup> = .347								

Table 2 shows that students exposed to both treatment group 1 (Science class) and group 2 (Art class) obtained the highest posttest mean achievement scores ( $\bar{x}=16.77$  and  $\bar{x}=10.21$ ) respectively compared to students in the control with a mean posttest scores of ( $\bar{x}=7.23$ ). Therefore, the treatment was more effective with students in the Science class than those in the Arts class.

**HO<sub>2</sub>:** There is no significant difference in the mean posttest achievement scores of students according to treatment and verbal ability

Table 1 reveals that the two way interaction of treatment and verbal ability on students' achievement in reading comprehension was not significant. Therefore hypothesis 2 is not rejected.

**HO<sub>3</sub>** There is no significant difference in the mean posttest achievement scores of students according to text type.

**HO<sub>4</sub>** There is no significant difference in the mean post test achievement scores of students according to treatment, verbal ability and text type

Table 1 shows that the difference in the mean posttest achievement score of students based on the 3 way interaction of treatment, verbal ability and text type is significant ( $F_{(10, 124)} = 4.133$ ;  $p < 0.05$ ) hence, hypothesis 4 is not rejected .

### **Summary of Findings**

The results of the study are summarized as follows:

1. There was a significant difference in the posttest mean achievement score of students who were exposed to self-explanation reading training (SERT) and conventional teaching method. Students who were trained to self-explain what they read had higher mean achievement scores more than those in the control group who were subjected to the conventional method. The results also revealed that students in the science class had the highest mean achievement scores, followed by those in the arts class.
2. There was a significant difference in the posttest mean achievement scores of students based on the type of text read. The result revealed that students exposed to the training had higher scores in the expository texts compared to the narrative texts.
3. The result also revealed that students exposed to the training were not significantly different in their mean posttest achievement scores on the basis of treatment and verbal ability.
4. However, when compared on the basis of treatment, verbal ability and text type, the difference in the mean posttest achievement scores of students was conspicuously significant.

### **Discussion**

The major objective of the study was to investigate whether SERT would have any influence on students' comprehension of expository and narrative texts as well as to ascertain the influence of verbal ability on students' comprehension of text. The study was implemented with students in government owned public schools using intact classes within normal school time.

As indicated in the result of the study, students subjected to the training programme scored higher than their counterparts in the control class. The two treatment groups seem to have differed in terms of their mean posttest achievement scores based on school type and category of class. Students in the science class performed better than their counterparts in the arts class. This aligns with previous studies in SERT which have consistently investigated the influence of SERT on students' comprehension of science text with appreciable and promising results (McNamara, 2004; McNamara, O'Reilley, Rowe, Boonthum & Levinstein 2007). There is not much available information on the implementation of SERT in the comprehension of narrative text. However, Dessus, Blanco, Nardy, Toffa, Dascalu and Trausan-Matu made an automated analysis of 3<sup>rd</sup> and 5<sup>th</sup> graders verbalization of what they understood when exposed to self-explanation during the reading of narrative text and they found that ability to recall recent sentences read was not uniform, there was a grade effect on pupils' recall of distal causal sentences.. Another possibility of the differences in the achievement scores of science and arts students may be attributed to the text structure which science students may have already been familiar with and the fact that the strategies integrated within SERT are more suited to the study of expository text than narrative.

The result may also be a function of school. Students in treatment group 1 are selected from schools labelled high performance school in terms of ability level and socio-economic background contrary to students in treatment group 2. Thus, they were likely to have mastered the strategy more than students in the lower performing school. However, the result, in treatment group 2 is a good indication of the efficacy of the training especially in enhancing the achievement of low performing students. This is in line with previous research findings that the effects of SERT are most evident for the students, who show the lowest comprehension, those with either low domain knowledge or low reading skills (McNamara 2004; 2007)

Some of the observed challenges that may have serious implication for future implementation of SERT in the ESL classroom were identified such as overcrowded classrooms which made it impossible for an effective one-to-one or individualized training, frequent disruption in the smooth training of students due to constant intrusion of unplanned school activities; low linguistic proficiency of students especially among the low performing schools, lack of textual materials, poor school attendance, uncooperative teacher attitude towards the programme. These extraneous factors may combine to influence the predicted result of the training programme.

## **Conclusion**

Self-explanation reading training (SERT) has great potentials to repair and enhance second language learners' comprehension skill required to master learning tasks involving higher order thinking processes such as that required to read and achieve a deeper understanding of expository and difficult texts. Therefore training students to monitor their understanding as they read, inculcate, internalize and utilize strategic reading skills will help them not only to be focused and engaged readers but also help them take charge of their learning

Due to the observed problems that may hamper the smooth implementation of the programme in Nigerian classrooms, the government, curriculum planners and school administrators should focus more attention on the professional training and retraining of reading teachers to become acquainted with contemporary student-centred instructional practices that would make learning to read more productive. This is because the teaching of reading in Nigeria is still 'an all comers affair, implying that most of the teachers of reading are hardly trained to teach reading. It is a general belief among school administrators that anybody who holds a certificate in language related course can teach reading. Meanwhile classroom and home environments are not made conducive for a good foundation and subsequent development in reading skill.

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## Discursivity and Creativity: Implementing Pigrum's Multi-Mode Transitional Practices in Upper Division Creative Production Courses

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**Abstract:** *This paper discusses the practical implementation of Derek Pigrum's multi-mode model of transitional practices (2009) within the context of upper division production courses in an interaction design curriculum. The notion of teaching creativity was practically and theoretically connected to a general notion of "discursivity." The concept of "discursivity" was related to students' overall ability to discuss, describe, and engage in a conversation about their creative work. We present a study of (1) the ways in which Pigrum's (ibid) transitional modes can be translated into a variety of course activities, and (2) discuss challenges and outcomes of directly engaging student discursivity in their creative output.*

**Keywords:** Teaching creativity, multi-mode transitional practices, discursivity, art and design education

### 1. Introduction

Teaching creativity is a challenging task. On numerous occasions, we have heard students majoring in Interactive Arts and Technology complain: "Everybody tells us to be creative, but nobody teaches us how to be creative." Instructional staff members at the School of Interactive Arts and Technology (SIAT) at Simon Fraser University (SFU) find themselves under increasing pressure to find more 'practical' parameters of teaching and encouraging creativity. To date, Derek Pigrum's *Teaching Creativity: Multi-mode Transitional Practices* (2009) is the most consistent, book-length theorization on the philosophical and practical aspects of teaching creativity. The research presented here – conducted across two semesters and four courses – constitutes a systematic exploration of applying Pigrum's model to assignments in upper division courses focusing on interactive narrative (*IAT 313 Narrative and New Media*), sound design (*IAT 340 Sound Design*), and new media & video production (*IAT 344 Moving Images; IAT 443 Interactive Video*). Extending on Pigrum's multi-modal model, we also implemented the notion of "discursivity" as an essential practical and theoretical foundation of creative practices. We define "discursivity" as students' overall ability to discuss, describe, and engage in a conversation about their creative work as well as situate their creative practices within theoretical and conceptual frames.

### 2. Research Questions

In order to conceptualize the relationship between discursivity and creativity (as a creative and learning outcome), we formulated the following research questions at the beginning of our study:

- In what ways can discursivity be implemented into production courses and contribute to students' practice and critical understanding of their creative work?
- How translatable is Pigrum's multi-mode model of transitional practices to the kinds of coursework SIAT students undertake in upper division creative production courses?
- Will the application of the pedagogic pattern of rich questions and dialogue, combined with discourse-engaging reading and writing activities improve the discursive and creative skills in upper division SIAT students?
- In particular, will such a pedagogic intervention result in improved abilities of students to create discourse around their work?

### **3. Methodology**

The study was conducted across two semesters, structured as Phase 1 and Phase 2. To address the issues formulated in the research questions, we conducted student surveys for the two courses of investigation during Phase 1 - *IAT 340 Sound Design* and *IAT 344 Moving Images*. The surveys were conducted online, using SFU's web survey tool. In Phase 1 of our project, we noticed a tendency to use the web surveys as an opportunity to complain about work load, TA attitudes, and other issues which were not directly related to the objective of the surveys. Accounting for this problem, we decided to analyze the efficiency of the instructional methods in terms of practical results and students' active performance (meaning quality of students' productions) during the second phase of our report (Phase 2). In order to maintain research objectivity, we measured the quality of students' productions against the following criteria:

- Internal evaluation of learning processes (performed by Teaching Assistants)
- External evaluation of students' projects (a person outside SFU community, but within the field of creative artistic practices was invited to express opinion about students' work)
- Evaluation of production qualities of students' projects between *IAT 344 Moving Images* Fall 2012 and Spring 2013 iterations of the course
- Comparison of content and formal qualities of students' artistic statements between *IAT 340 Sound Design* in Fall 2012 and *IAT 313 Narrative and New Media* in Spring 2013

The above four criteria combined together address each of the research questions through a mix of different aspects and perspectives. In addition, these criteria interrelate in their ability to evaluate not only the teaching and learning objectives of the courses under investigation, but also the level at which these objectives were achieved by the students.

### **4. Outline of Pigrum's Multi-mode Teaching and Learning Transitional Practices**

Building on the foundational work of Donald Winnicott, who elaborated the classical theories of the transitional object and experiences in earlier psychoanalytic and developmental discourses – most famously, the theory of the “security blanket” as the space of negotiation between self and other differentiations in the child, the imaginary object that forms a bridge between inner subjective space and external reality– Pigrum's (2009) notion of “transitional practices” distinguishes between three foundational meta-modes of teaching and learning practices, which are then subdivided into lower-level patterns of interacting and overlapping practices. The three foundational meta-modes are: (1) Sign modes; (2) Operative modes; and (3) Place modes. These are briefly discussed in the following sections.

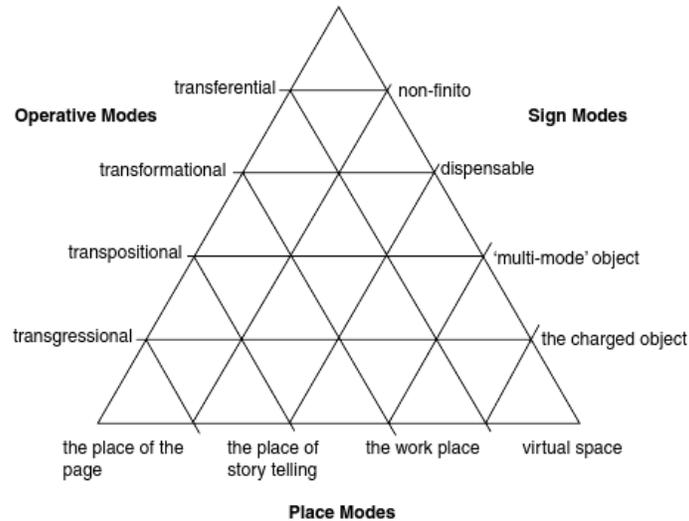


Figure 1. Pigrum's suggested multi-modes of teaching and learning. *Note.* Adapted from "*Teaching Creativity: Multi-mode Transitional Practices*", by D. Pigrum, 2009, London; New York: Continuum.

These three meta-modes are generally related to language and culture (the Sign mode), pragmatics (the Operative mode), and situatedness (the Place mode).

#### 4.1 Sign Modes

This meta-mode treats different types of signs as representational spaces which embody multiple, complex, and imbricate significations. Pigrum identifies four sub-levels of this mode: non-finito sign use, "ready-to-hand" dispensable surface of inscription, the "multi-mode" object, and the "charged" object. The non-finito sign use includes practices such as: approaching ideas and definition with an open mind; modification of creative and progressive practices; leaving space for doing, undoing, and redoing; allowing for the inventive power of indeterminacy; and, implementing sketches as a draft of a thought. The "ready-to-hand" dispensable surface of inscription focuses on the pragmatic logistics of learning and advocates for: working on whatever happens to be there; allowing for things displayed by both "us" and "others"; and, a free play of or between absence and presence. The "multi-mode" object focuses on blurred modes of expression which transgress linguistic or visual representations. These may include: shifts between different modes of representation, such as writing, diagramming, and drawing; and, the inclusion of draft-like entities that involve the use of more than one sign mode. The "charged" object mode focuses on identifying the "charge" that objects have for us. These "charges" may serve like clues that can be followed, evolved, confronted, or conformed to.

#### 4.2 Operative Modes

The operative modes of teaching and learning encapsulate practices which support a journey through the unknown and the transgression of limiting boundaries. The operative modes include: transferential mode, transformational mode, transpositional mode, and transgressional mode. The transferential mode is used in the recording of artifacts of particular interest that can be carried over to present creative activity. The recording can be a copy, note, or records (referential drawings) which serve as a stock of accumulated memories. The transformational mode emphasizes the importance of teaching and learning practices through the conversion of

one form into another. Activities may include: separating and combining forms, displacing activities, and learning through getting lost. The transpositional mode focuses on the importance of the *process* of learning on formation of ideas. In this mode, there is no time for reifying operations, where all essential information is highly condensed or contracted and thus constructs a higher order of integration, condensation, and displacement. The transgressional mode is the mode of undoing based on things that are not permanently anything. This mode signifies the transgression of the figurative in the direction of the figural.

#### **4.3 Place Modes**

The modes of place focus on the things that can be learned from the idiosyncratic structure and transparency of the places that surround us. The place modes include: the ontology of the workplace, the place of the page, the place of the story, and the mode of the virtual space. The ontology of the workplace connects the value of being to its situation – to the stable and presentable determination of a locality and the topos of a territory (Derrida via Pigrum, 2009). This mode implies a focus on situations where there are complex patterns to be perceived and where recognition of these patterns enforces certain moves and procedures for solution. The place of the page mode juxtaposes different learning outcomes from various note-taking practices – typing versus handwriting, for example. The place of the story mode discusses how practices are always communicated through stories and the importance of keeping a record of creative and research endeavors as a form of storytelling. The mode of virtual space engages with the shift in sensory and interactive modalities of encountering in virtual environments. Pigrum argues that virtual spaces impose and result in sadness and isolation. Here, we want to mention that there is substantial room for revision in Pigrum’s theoretical framing of virtual space. The online sociality of “digital natives” is not explored or understood in a contemporary learning scene. What is of importance is to support online student communities with in-person (in real space) meetings to nurture communication within groups and teams.

#### **5. Mapping Pigrum’s Modes to Coursework**

The teaching and learning methods implemented in the courses included in this study were aimed at enforcing discursive practices that supported students' creativity in their coursework. We introduced new teaching and learning strategies to the courses which were derived from Pigrum's multi-mode transitional practices of teaching creativity. These teaching strategies are discussed throughout sections 5.1 -5.3 of this paper.

##### **5.1 IAT 313 Narrative and New Media**

IAT 313 Narrative and New Media is an upper division course which aims at exploring narrative strategies in multimedia environments.

##### **Critical/Creative Reading**

Students were assigned five “dense” essays and were expected to “steal” and apply ideas (hypothetically, as a creative brainstorming exercise), toward revising their first narrative project. Ten essays were posted online and students were asked to choose five of these as fertile territory in which to creatively steal ideas (rather than regard them as texts that they would have to write research papers about). This activity corresponds to Pigrum's *non-finito sign use*, *transformational mode*, *transgressional mode*, and *place of story* teaching and learning practices.

## **Remediation**

Students were asked to transform a linear narrative (short story, video or comic) into a non-linear narrative – in our case, a video game. Students were also assigned two major (dense, high page count) readings on the relationship between game play and storytelling, and asked to produce visual materials that prototype what their short narrative might look like as a video game. This activity corresponds to Pigrum's *non-finito sign use*, *multi-mode object*, *transformational mode*, *transgressional mode*, and *place of story* teaching and learning practices.

## **Draft Narrative**

Students were expected to submit a draft of their first major narrative project (linear narrative) and receive feedback from the instructor, teaching assistants and their peers. This activity was not graded on results, but on effort (on time submission, completeness). Students were then asked to revise the story based on the feedback they receive. This activity corresponds to Pigrum's *transgressional mode* of teaching and learning practices.

## **5.2 IAT 344 Moving Images**

IAT 344 Moving Images is a production course which provides the fundamentals of digital video production including: visual theory, composition, lighting, sound, editing, and continuity among others.

## **Peer feedback groups**

Peer feedback groups are formed by four or five students with the aim of organizing online peer evaluation micro-communities. The objective of these micro-communities is the assessment and provision of mutual feedback on each peer-student's work. Prior to forming the groups, students were provided with materials to direct them toward giving meaningful, constructive, and usable feedback. Students were required to submit proof of giving feedback to their peers. The proof consisted of screenshots of the feedback that has been sent to fellow peers. Such feedback organization corresponds to Pigrum's *place of the page* and teaching and learning practices.

## **A large variety of web-based sources that expand on lecture content**

These were sources available via the online platform for the course –WebCT. The main purpose of the materials was to further elaborate and expand on weekly lecture content in terms of both (1) practical skills, and (2) theoretical knowledge/ conceptualization. This activity corresponds to Pigrum's *multi-mode object*, *place of story*, and *mode of virtual space* teaching and learning practices.

## **Mandatory credit film journals**

In Phase 1 of our project, this assignment was optional (extra credit). In Phase 2, students were asked to read writings and interviews with four major filmmakers - Cronenberg, Scorsese, Fellini, and Renoir. This activity corresponds to Pigrum's *multi-mode object*, *place of story*, and *mode of virtual space* teaching and learning practices.

### **Semi-weekly intensive feedback sessions on staged deliverables (6 in total)**

Blended mode instruction was utilized, off-loading much lecture content to WebCT (SFU's course management system) to free up space for individual, one-on-one (team, instructor, and teaching assistant) feedback sessions on deliverables throughout the semester, typically lasting for 30 minutes each. Discursivity employed here refers not only to writing and reading, but also to a dialogic back-and-forth core, in which students articulate and justify their creative decisions. The meetings were set up via Doodle.com and aimed at reviewing the weekly or biweekly assignment deliverables. This feedback organization corresponds to Pigrum's *non-finito sign use*, and *multi-mode object, transformational mode* teaching and learning practices.

### **Film blog**

Mirroring professional practice, students were required to create film blogs documenting their process of making throughout the term, combined with such elements as documenting photography, artist statements, adventures in the field, technology used, research in film precedents, and aesthetic ideas. This activity corresponds to Pigrum's *non-finito sign use, multi-mode object, transformational mode, ontology of the workplace, place of story, and mode of virtual space* teaching and learning practices.

### **Rehearsal Footage & Draft Version of Individual Video**

Students intentionally produce "throw-away" footage. They shoot their entire team video seriously but without their actors, using just themselves. They act, light, edit, and shoot their video as a rough draft so that feedback can be given on their overall skills before they engage with their final video version. In addition, for their individual video, they submit a draft for feedback and revision. This activity corresponds to Pigrum's *transgressional mode* of undoing.

### **5.3 IAT 443 Interactive Video**

This upper-division production course explores interactivity through the medium of moving images and video. To support creative learning, we included the following discourse-based elements:

#### **Social issue documentary**

The first project was reformatted to be an online interactive (web-based) documentary on any social issue of students' choice. This format of the assignment situates the project in a general social discursive field. In the past, student projects varied significantly in terms of concept and execution. This change located everyone's project in the same general conceptual field of societal issues. This activity corresponds to Pigrum's and *mode of virtual space* practice.

#### **Documentary and interactive documentary theory**

The focus of this project allowed for in-depth readings in key documentary and interactive documentary theory (critical reading). These readings develop key modalities (typologies) and students were asked to state which ideas in the texts were closest to their own strategies and intent. This activity corresponds to Pigrum's *multi-mode object, transformational mode, and mode of virtual space* teaching and learning practices.

### **Presentations on documentary and social issue concept**

Student teams had to present their documentary and conceptual framework to the class for critique, and a Q&A session. This activity corresponds to Pigrum's *non-finito sign use* teaching and learning practice.

### **Faux kickstarter page**

Mirroring contemporary professional practices of independent production with respect to potential funding (crowd funding), students had to develop a faux Kickstarter page (articulating and pitching their project as a potential kickstarter project). This activity corresponds to Pigrum's *ontopology of the workplace*, and *mode of virtual space* teaching and learning practices.

### **Public art calls**

For project 2, which has always been an interactive audiovisual installation (spatial interaction), students were given a multitude of actual public art calls for site-specific installations (from professional sources), and required to articulate their project as a response to an actual site, and a prototype of a project that could work in the specified real space, according to the stated requirements of the call. This activity corresponds to Pigrum's *transferential mode*, *transformational mode*, and *ontopology of workplace* teaching and learning practices.

### **Installation presentations**

Presentations of final projects have always been required; however, the newly-introduced public art situatedness added a professional aspect and a major discursive element (responding to a real site with limitations, scope, aims etc.). This activity corresponds to Pigrum's *non-finito sign use*, and *ontopology of workplace* teaching and learning practices.

### **Project a video image on an object**

Students are asked to bring in footage to project video onto physical objects which alter the meaning of the footage. This activity corresponds to Pigrum's *"ready-to-hand" dispensable surface of inscriptions*, *transpositional mode*, and *mode of virtual space* teaching and learning practices.

## **6. Results**

### **6.1 Internal Evaluation**

The teaching assistant for IAT 443 Moving images expressed a positive attitude toward the learning results induced by the instructional changes introduced to the course. It is important to be emphasized that the teaching assistant for the course has also previously taken the course as a student. Based on her experiences both as a teaching assistant and a previous student, the internal evaluator stressed the positive changes in students' performance that the new instructional methods have resulted in.

### **6.2 External Evaluation**

The external evaluation is important as it indicates the level at which SIAT students' active performance is compatible outside academic environments. The external evaluation conducted for IAT 344 Moving Images expressed a very positive opinion in regard to students' production.

### 6.3 Evaluation of Production Qualities of Students' Final Team Videos for IAT 344 Spring 2013 and IAT 344 Fall 2012

We received 15 final video projects for IAT 344 Spring 2013 and 13 for IAT 344 Fall 2012. To compare the production qualities, we used the following evaluation table:

CONCEPTUAL (concept, narrative structure & elements)	/2.5
TECHNICAL (production values, efforts and techniques)	/2.5
CREATIVE (originality and innovative ideas)	/2.5
OVERALL IMPRESSION	/2.5
Total	/10

After assigning to each video a value out of 10, we calculated an average for each iteration of the course. The average for the final team videos for IAT 344 Spring 2013 was 8.46/10, while the average for IAT 344 Fall 2012 was 7.93/10. The increase in the average from 7.93 to 8.46/10 corresponds to increased quality of students' active performance. We partially assign the increased quality of student production to (1) the introduction of mandatory film journals (Spring 2013) as opposed to optional (Fall 2012), and (2) increased and refined volume of engagement with discursive practices (reading, writing, and audio-visual materials).

### 6.4 Comparison of Themes in Students' Artistic Statements between IAT 313 Narrative and New Media in Spring 2013 and IAT 340 Sound Design in Fall 2012

The incentive for students enrolled in IAT 313 Spring 2013 to write an artist statement on their final project was 1 pt. of extra credit. Therefore, a minority of students completed this exercise. We collected 22 artist statements out of 72 students enrolled – a correspondence of 30.5% of the total class enrolment.

For IAT 340 Fall 2012 the artist statements were mandatory.

We conducted thematic analysis of all artistic statements. Thematic analysis refers to "the process of analyzing data according to commonalities, relationships and differences across a data set. The word 'thematic' relates to the aim of searching for aggregated themes within data." (Gibson & Brown, 2009, para. 1)

We identified the following repetitive themes:

- Emotions associated with production
- Self-reflexivity
- Creative styles of verbal expression
- Awareness of personal perspectives, approaches, preferences, aesthetics

What we indicated as a difference between artistic statements obtained from IAT 313 and IAT 340 is the elevated level of self-reflexivity and analytical depth reached by IAT 313 students. Where the majority of artistic statements from IAT 340 incorporate description as a means of conveying artistic experience, artistic statements from IAT 313 are distinguished by rigorous writing, and an almost deconstructional approach to personal artistic practice. We also

noticed that some students from IAT 313 tried to implement strategies from the course' materials into the graphic design of their artistic statements and thus non-verbally communicate their artistic nature within an otherwise verbal assignment. Again, we partially assign this progress in artistic practices, thinking, and expression to the increased and refined volume of engagement with discursive practices (reading, writing, and audio-visual materials) during the second phase of this teaching and learning project.

## **7. Conclusions**

Pigum's multi-mode transitional practices of teaching creativity (2009) are highly adaptable to a variety of learning situations. With a generalizable field of twelve conceptual themes and practical parameters to explore, it is not difficult to find potential mappings and modifications to assignments that enrich the creative output of students in upper division production courses. This application of theory to pedagogy resulted in a higher number of portfolio quality student work produced in the courses under investigation when compared to previous iterations of the same courses. Thematic analysis of students' writing further revealed improvements in overall verbal and written articulation of their work, herein defined as discursivity, or the ability to create and sustain discourse around their creative output.

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## **Inclusion and Teachers' Training: Reflecting upon Hows and Whys**

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**Abstract:** *This work discusses an action on teachers' training called Pedagogical Residence, a course offered to graduates from a public University in Brazil who decided to go on with teaching but come to us for support. Here we present some workshops dealing with inclusion, prejudice and other issues regarding situations teachers have to face and need to work what we call 'the hows and whys'. The workshops were planned and developed by masters and doctoral students, as well as undergraduate students at the end of the course of Education at UERJ, who held some sort of financial assistance from the university, as scholarships for initial research. Methodology is examination of the use of narratives by teachers enrolled in the process; the main results show that universities and school systems can think together about long term programs considering that teachers' training is a co-responsibility process.*

**Keywords:** Teachers' training; University-school co-participation; Narratives.

### **Introduction**

This work discusses an action on teachers' training called Pedagogical Residence, a course offered to graduates from a public university in Rio de Janeiro, Brazil, who decided to go on with teaching but come to us for support for beginning teachers graduated from the institution, although has been incorporating newcomers from other institutions brought by colleagues who believe in what we do and share.

The paper presents thoughts about meetings where the discussions dealt with inclusion, prejudice and other issues regarding situations teachers face and need to work what we call 'the hows and whys'. Other debates occurred about broader subjects like teacher-student interactions, content to be planned and delivered to students, day-to-day situations with parents regarding students' misbehavior or homework. The kind of work that can be developed with teachers and in the schools is an example of how the university can work with schools and help to develop human resources.

In order to be a good teacher we need to help others develop what they have and do best, unfortunately, a culture not well developed at university level. As professors we tend to give our 'knowledge' to the ones who we think don't know much, going against the thought of Freire (1994) on teaching as an exchange and a feeling that good teaching involves a constant dialogical conversation between student and teacher and student-student.

The main methodological approach for the present research, dealing with the dialectics between theory and practice, consisted of pedagogical activities that enabled participant and collaborative planning and research. The university team and the teachers involved with the

activity worked together, for a process constructing knowledge dialoguing, interacting, and reflecting upon the possibilities brought about by the proposed activity, to the group and to the individuals as well. The goal was to make it possible for public school teachers to be reflexive in the exercise of their chosen teaching profession. The Pedagogical Residence was registered as an extension program for those involved and as a consequence it would certify for career development. It is hard to measure the effects of such initiatives so this recognition was significant for the project's success.

### **Theoretical Reflexions**

While reflecting on the process developed with the participants, a discussion on the notion of belonging became a significant way of linking deeper constructions on perceptions about ourselves and others. The conception of belonging refers to a possibility of changing behaviors, attitudes and values for transforming people and relations capable of creating protagonists of a new paradigm.

Morin (2000) considers belonging to humanity as a triad made up of the individual, species and society. In this approach, society lives for the individual, s/he lives for society and both live for the human species. For this author, the movement between unity and diversity assures individuals' self-realization, perpetuation of culture and society's self-organization, and understands belonging as a feeling. By considering that its ethical and political purpose is plenitude and free expression by individuals, this movement between unity and diversity states that all truly human development is nothing more than the development of individual autonomy, communitarian participations and feelings of belonging to human species. According to Morin, several manifestations witness the presence of the *homo ludens*, *poeticus*, *consumans*, *imaginarius*, *demens*. (Morin, 2000, p. 50). These are seen in activities like games and parties that are not only pauses before returning to work or 'real' life, and beliefs in gods and ideas which cannot be reduced to illusions or superstitions as they have roots that refer to the human being in its own nature. He suggests that education can illustrate the unity/diversity principle in all spheres and nothing human can be considered strange as prejudice is present in everyday life, culturally constructed by humans and hard to break down. Stating that we ascribe deficiencies to our students and their families, Palmer (1998) challenged us to see students as they really are: "Why do we diagnose their condition in morbid terms that lead to deadly modes of teaching? Our conventional diagnosis allows us to ignore our failings as teachers by blaming the victims." Once we accept that all children can learn at high levels, we have increased their chances of feeling a sense of belonging in our classrooms. One way we can accomplish a sense of belonging is to build community within the classroom. And that can start with building communities within the teachers, studying together themes of their choice, what has relations to our workshop proposal.

For Sarmiento (2002), it is within community relations and in the construction of reference values that belonging to groups is built up; social units constitute materials and symbolic reference for individuals, when they perceive themselves as integrated. As we work with teachers as a group in discussing relevant topics to their practice, requested by them, we are encouraging them to become a social group. By doing so, they are exchanging symbolic and material references, in which they establish links and identity, avoiding isolation from the process. The notion of belonging as social identity is a central aspect of how we define who we are and where we stand. Belonging is a very powerful tool as it deals with our inner self, to be

part of something bigger than ourselves, to be accepted and loved, with our strengths and weaknesses. We are individuals but it is our membership to different groups is what matters in constructing our sense of identity. To belong is for humans what a good soil is for plants or a clean sea for fishes, nurturing and providing a safe environment for the adventure of living. In our case, as humans, this involves building social interactions and citizenship.

The idea of social belonging corresponds to a community with personal relations of mutual recognition and feelings of adherence to common principles and visions about the world that enable people to feel participants of the same space and time, origin and territory. Our sense of identity is founded on social interactions that show our belonging to particular communities through shared beliefs, values, or practices. The choices that we make, from our religious views to friends that we acquire, to the cars we drive or the insurance we buy, serve to position us as part of the groups, networks and communities that make up human society.

Developing a sense of belonging is an ongoing process that involves membership in, or exclusion from, a wide variety of different groups during the course of our lives. In a society where our social status is, to a great extent, measured by the work we do or the money we earn, it is no surprise that professional identity is an important locus of belonging for both men and women. It is, after all, often the first characteristic that people offer up when introducing themselves to others. On empowering teachers through processes of self-improvement, we, as the university voice, can help improve working conditions for those who are at the public schools and can feel better about their career choice and their place in society.

The importance given to our membership within particular groups, like family, workplace, school or any other space, can determine the kind of identities we build. One can be aware of changes that occur over time, one group that we used to belong to suddenly does not say much to us anymore. The students we deal with in schools sense that feeling all the time and we, as attentive teachers, must pay attention to these situations. Often these situations are potentially harmful for those who feel excluded for a long period of time, from all groups. Failing to achieve an adequate sense of belonging can have important negative consequences (Baumeister & Leary, 1995). On the other hand, as we join and leave different social networks and groups, we reposition ourselves in relation to others, developing new connections and discarding others in a continuous process of social interaction and integration. This is very positive for our constitution as human beings living in society. Opposing the idea of belonging, we have the exclusion processes in society in general and in classrooms in particular. We dealt with inclusion as a category, talking about the examples brought up by teachers as we went along to the workshops, discussing and reflecting together.

Castel (1997) notes that social dysfunction should not be considered as exclusion. When dealing with situations of school exclusion, teachers should sort out symptoms that can lead to mistakes in judgment. We have to try to assure that positive discrimination measures, that are necessary, do not become exceptions and also try to remember the preventive aspects of fight against exclusion. When dealing with teachers, several issues can be related to the feeling of exclusion, like salary and social recognition. Castel examines the issue of exclusion in an historical perspective, emphasizing the relations that are present. For him, exclusion is not lack of social relations, but a set of particular social relationships in society taken as a whole.

The concept of exclusion is a theoretically disputed subject. It is also political, insofar as the way to see the phenomenon involves certain ways to treat it when thinking about practical measures of intervention. Thus, a vision of social exclusion as a phenomenon that expresses disruptions in the social fabric suggests the construction of new theoretical paradigms and ways of life never thought of before. On the other hand, social exclusion as a form of precarious insertion can turn revolutionary propositions of social transformations into reformists or even superficial proposals. In a society such as Brazil's, which many argue is based on inequality, one has to be aware of the difference between given rights and rights that have been fought for by individuals and groups within society. Concessions do not build up citizenship, self-understanding does. Therefore, theory and practice must come together, interacting and mutually influencing one another.

Exclusion does not necessarily mean marginalization, even if it can, sometimes, lead to it. To make sure that we are talking about exclusion in the same way, it is necessary to take into account the procedures that lead to exclusion, which may be diverse. During the workshop teachers talked often about excluded students. This made us think about the processes these students and teachers live with in schools that promote situations we try to avoid.

Erwin (2003) calls our attention to the importance of good relations in schools saying that we are social creatures, live in family units, work on teams, form civic organizations, attend social gatherings, and engage in hundreds of other behaviors that help us connect with others. He states that there is a lifelong connection between the quality of our relationships and our physical and mental well-being. Erwin advises teachers to create the conditions for students to feel a sense of belonging and acceptance in dozens of ways. He provides examples: learning each student's name as soon as possible; engaging students in activities that help them learn one another's names; greeting all students as they enter your classroom; letting students know your outside interests, what you stand for, and who you are; engaging students in team-building activities; teaching them how to work cooperatively; and, giving regular opportunities to learn in structured cooperative activities. A good approach and form of evaluation is to conduct class meetings on a regular basis for class-building, problem-solving, and content-related discussions.

In the course of our lives, we become interdependent, and form many give-and-take relationships, building a healthy interdependence with family, community, and culture. Biologically designed to live, play, grow, and work in groups, we are, at our core, social creatures. Affiliation is the strength that allows us to join with others to create something stronger, more adaptive, and more creative than any individual: the group. Perry (2002) suggests that teachers can help their students to master skills for group work and develop sense of belonging by being aware of exclusion processes that occur in their classrooms and, in so doing, promote better interaction activities, dealing with violence episodes that can emerge in such situations. It is a good way to use tasks that require two or three students to accomplish so these activities will help them see the value in cooperating and team building.

### **Presenting the work developed: the hows**

The project was organized as workshops planned and developed by the group, especially involving educational inclusion/exclusion concerning public school students. Unfolding themes of interest for teachers helped them make interconnections between theory and practice, broadening their possibilities for action within the public school system. The entire process

developed with the group of teachers and school administrators had, as a main goal, the improvement of classroom interactions, as far as the teaching process related to contents transmission as well as improving teacher-student relations.

The project was officially registered as an extension program for those involved and, as a result, it would certify them for training undergraduate and graduate students in charge of planning and developing the several activities undertaken. It is hard to measure the effects of such initiatives so this recognition was significant for the project's success. To ensure that the results reach the classroom and operate any significant change in basic education, teachers need to have information and knowledge about them. In this way, we this work contributes in a way that teachers can understand: the interactions that are expressed within the classroom and thus have subsidies to develop a pedagogical practice centered on the student and their learning and the prospect of their future success.

We believe in the possibilities of an alternative of overcoming the difficulties presented daily in the school through dialogues between research and educational practices in the classroom, allowing for the creation of spaces for inclusion within the school. Thus, the development of activities with recurring thematics in education can provide a critical mass driving towards an educative praxis in favor of all students. The goal was to make it possible for public school teachers, both while taking part in the workshops and afterwards, to be reflexive in the exercise of teaching.

The workshops were planned and developed by masters and doctoral students, as well as undergraduate students at the end of the course of Education at UERJ, all who held some financial assistance from the university. The activities were meant to discuss themes of interest, explain the issues involved and to promote interaction between the given content and the participants. At the end of the work, there was an individual assessment to evaluate the program. The intention was to lead teachers to discuss more specific issues on inclusion, thus enabling discussions among the group so that all could give their contributions. In this context, we built together with teachers a proposal for the work, talked about students with educational difficulties and discussed with teachers their pedagogical practices. The aim was to provide an opportunity for the possibility of self-reflection of their practices with a critical glance and a desire to improve their way of teaching and seeing the teaching profession.

Educating teachers can be a very challenging task. To propose workshops in order to discuss concepts and practices in this area deals with private and public dimensions and individual and collective perspectives in a way that completes a cycle. According to Josso (2004), it is through the dialectics of individuals and groups that we build our humanity, so the process lived by teachers and the UERJ team reflects relations in movement. We searched our inner selves, our roots and reflecting on our experiences have our individual points of view, give meaning to our stories and, from a collective point of view, we understand ourselves as belonging to a community. The people involved have learned that one can combine constraints with margins of freedom, through an increase of lucidity (Josso, 2004).

### **Some considerations: the whys**

University research can play an important role in promoting spaces of reflection and improvement. It is our social duty to give a return to society who pays our wages and grants. An

evaluation of the project brings about a contribution on the understanding of alternatives to deal with school failure, promoting other forms of dealing with our frustrations and drawbacks when performing the difficult mission of teaching. We learned once more that research in education could be a form of producing better conditions for all those actors involved in schooling. We learn that better relations can lead to better performances. We believe this kind of approach can inspire others who work in the field of teacher training in dealing with inclusion.

Our goals were to promote an interaction between research and practice, bringing benefits to all involved in the process, broadening the scope of possible approaches to teaching and learning. Dialoguing about experiences and feelings, bridges were built in order to enhance belonging within the groups and strengthen individuals to deal with their realities as committed professionals.

From our lived experience, we note that it is necessary to search for strategies that can help overcome difficulties and challenges building up a school community where all feel a belonging to that universe, creating and maintaining positive interactions without losing individual singularities. Universities and school systems can think together about long term programs, curricular organization, space organization, power relations, towards building a more democratic and participatory school prepared to incorporate a new culture. At the same time, it is important to open new environments for participation and expression of students' from diverse backgrounds. For that, there must be an aggregator space, where coexistence and tolerance of differences are key elements to ensure a stable environment and healthy intra and interpersonal relations.

We, as teachers of teachers, need to acquire knowledge of the complexity and multi-dimensional nature of diversity and to understand the relations between individual and group identities and functioning, so that teachers are able to recognize different aspects of diversity, not as student deficits, but as resources for promoting a rich learning environment. A wide range of teaching approaches, methods and materials for responding to diversity exists; we need to know these approaches and acquire the skills in inquiring about different socio-cultural issues; we also need to be able to create, in our classrooms and in the school community, a climate in which there is open-mindedness and respect. This involves developing students' understanding, curiosity about and respect for others and nurturing positive relationships. It is an important part of teaching to find ways to motivate and stimulate all students to participate in learning and to find creative ways of ensuring that they are not excluded from participation. Teaching children to learn both individually and in co-operation with others is an important way of developing a strong school community and enhancing relationships within it.

The Pedagogical Residence brought significant resources for teachers and the university. We educators must understand that in every teaching-learning experience one must consider his or her own knowledge, the knowledge of others and, when possible, grow in knowledge and humanity. This work can help to improve teacher-student interactions, and also help raise consciousness about the importance of self-reflection in teachers training.

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# **<sup>1</sup>Unwarranted Certainties in Education: The Role of the Foundations in Preparing New Teachers**

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**Abstract:** *Much has been written about teacher attrition after the first few years of teaching (Karsenti & Collin, 2013) and many have blamed this trend on the inadequate preparation of beginning teachers for the ‘uncertainties’ of teaching (Floden & Clark, 1988). While this may be true, we think that ‘certainties’ (Kahneman, 2011), particularly those that are unwarranted, pose just as great a threat to teacher preparation, satisfaction and retention. In our paper, we present a typology of different types of certainties and uncertainties in education focusing specifically on ‘unwarranted certainties’. Next, we compare and contrast myths, bandwagons, and moral panics as three types of unwarranted certainties. Finally, we turn our attention to the foundations disciplines and discuss why we think they are critical in developing the habits of mind necessary for challenging unexamined assumptions, taken for granted beliefs, and unsupported theories that underpin much of what we do as teachers.*

**Keywords:** teacher preparation; certainties and uncertainties; foundations of education

## **Introduction**

It has been well documented that learning how to cope with the ‘uncertainties’ of education is a major concern of prospective and beginning teachers (Helsing, 2007; Schuck & Buchanan, 2012). Given the increasing diversity of students in classrooms, the increasing call for accountability, and the increasing demands of parents and the general public alike, it is no surprise that many teachers leave the profession within the first five years (Karsenti & Collin, 2013). However, in our preoccupation with the relationship between these kinds of uncertainties and teacher attrition, we think that far too little attention has been paid to the ‘certainties’ of education that are not always warranted or even supported by evidence. Unwarranted certainties include ‘myths’, our unexamined assumptions about teaching and learning, ‘bandwagons’, our unjustifiable faith in educational panaceas, and ‘moral panics’, our unsupported fears about threats to the well-being of society. In this paper, we explore the notion of certainties and uncertainties in preparing new teachers. To begin, we present a typology that illustrates different types of certainties and uncertainties with a particular focus on ‘unwarranted certainties’. Next, we compare and contrast myths, bandwagons, and moral panics as examples of unwarranted certainties and provide an example of each. Then we turn our attention to the foundation disciplines, their current status in teacher education programs, and a discussion of why we think they are so critical in helping new teachers develop the habits of mind needed to challenge the unexamined assumptions, taken for granted beliefs, and unsupported theories that we all have as teachers.

## **Warranted and unwarranted certainties**

Hot button issues that spark public debate in newspapers, blogs, and television shows, remind us that education is rarely the subject of ‘good news’. Indeed, if we are to believe what we read and hear in the media, schools are generally failing, they are full of unruly students, they are run by corrupt school officials, and they are rife with questionable sexual behaviour on the part of both teachers and students. Although such exaggerated and often false media reports may result in staff room jokes, the long-term effects of such stories on the teaching profession are no laughing matter. Often repeated media narratives become taken-for-granted ‘truths’ that can be extremely damaging to the level of support that teachers and schools receive from parents and members of their communities.

Unfortunately, as Kahneman (2011) points out, research in cognitive psychology has shown that people are extremely quick to adopt taken-for-granted truths as certainties and are likely to do so, based on surprisingly little evidence. These unwarranted certainties that result in myths, bandwagons, and moral panics are often immune to reasoned arguments or disconfirming research. In this paper, we provide a deeper look into some of the unwarranted certainties in education and demonstrate how readers can draw on the rich traditions of the history, philosophy, and sociology of education to avoid succumbing to faulty first impressions or being blinded by long-held beliefs and unexamined assumptions. We argue that the essential questions posed by the foundations of education can help beginning teachers to recognize the validity of certainties that are warranted and to question those that are not.

We are aware that the pursuit of certainties and the fear of uncertainties can consume new teachers and can continue to create tensions and frustrations long after teachers have gained experience in the classroom. As Floden and Clark (1988, p. 505) point out, ‘Teaching is evidently and inevitably uncertain.’ The list of uncertainties that face beginning teachers is much too long to provide here but they include such concerns as: whether or not they have sufficient knowledge and experience to teach the subject matter they are asked to teach, how they will be able manage their classrooms and accommodate diversity, whether or not they are teaching what is most worthwhile to prepare their students for the future, and whether or not they are assessing their students fairly.

To date, we are unsure whether beginning teachers are debilitated by such uncertainties or are motivated to grow professionally as a result of them (Edwards, Gilroy, & Hartley, 2002; Floden & Buchmann, 1993; Floden & Clark, 1988; Schuck & Buchanan, 2012; Shulman, 2005). However, Helsing (2007, p.1329) suggests that “schools can and should do much more to minimize uncertainty while teachers learn how to reflect successfully on the uncertainties that remain.” She also argues that teacher education programs need to address the messiness of teaching explicitly, because otherwise, “teachers will continue to feel that the uncertainties they experience are anomalous, indications that they are not teaching well, or are aspects of the job that should and will vanish with time and increased expertise and experience” (p. 1330). Along with Lampert (1985;1986), we have made a similar case elsewhere that teacher education programs need to be less concerned with problem solving and more concerned with helping prospective teachers work through dilemmas that are less amenable to quick fixes of any kind (Mandzuk & Hasinoff, 2010).

It turns out that feelings of inadequacy are common among the unacceptably large percentage of teachers who leave the profession within the first five years after graduating

(Karsenti & Collin, 2013). Although this exodus has been blamed, in part, on feeling unprepared for the uncertainties mentioned above, we think that *certainties*, which on one level can be considered to be the major goal of teacher education programs, have been overlooked in the discussion about teacher attrition.

We believe that greater attention should be paid to certainties in education such as myths, bandwagons, and moral panics because they are based on unexamined assumptions, taken-for-granted beliefs, and unsupported theories. To understand these types of certainties and how they compare to uncertainties, we refer the reader to Figure 1 below.

**Figure1. Certainties and uncertainties and their causes**

	Uncertainties	Certainties
Warranted	<p>A. <i>What we do not know or what is yet unknowable</i></p> <p>CAUSES:</p> <ul style="list-style-type: none"> <li>• insufficient evidence</li> <li>• anecdotal evidence</li> <li>• lack of relevant knowledge or skills</li> </ul>	<p>B. <i>What we know from supporting evidence</i></p> <p>CAUSES:</p> <ul style="list-style-type: none"> <li>• peer-reviewed empirical research</li> <li>• evidence-based conclusions</li> <li>• verifiable facts</li> </ul>
Unwarranted	<p>C. <i>What we are unable or unwilling to know</i></p> <p>CAUSES:</p> <ul style="list-style-type: none"> <li>• anxiety</li> <li>• cynicism</li> <li>• confusion</li> </ul>	<p>D. <i>What we know without supporting evidence</i></p> <p>CAUSES:</p> <ul style="list-style-type: none"> <li>• unexamined assumptions - <b>myths</b></li> <li>• unjustifiable faith in panaceas - <b>bandwagons</b></li> <li>• unsupported fears about society - <b>moral panics</b></li> </ul>

*Warranted uncertainties*, as summarized in quadrant A. occur when we confront unknowns like how to maintain high academic standards and attend to issues of equity in the classroom or when we try to learn something new such as learning to speak a new language or learning to use a new computer program. *Warranted certainties*, depicted in quadrant B. arise when we can verify what we know, like the answer to a Math equation, the name of the capital cities in Europe, or the effects of specific descriptive feedback on achievement. *Unwarranted uncertainties*, listed in quadrant C. occur when we are unwilling or unable to know something such as when we reject new ideas simply because they are new or when we refuse to learn a new technological device because we become so overwhelmed. *Unwarranted certainties*, found in quadrant D. arise when what we think we know is based on our own assumptions, theories, and beliefs and is not supported by evidence.

To be fair, addressing our own unwarranted assumptions, theories, and beliefs is neither easy nor intuitive. Indeed, as teachers, we often cling tenaciously to what we think *works* and try to increase its predictability by establishing and maintaining routines around it rather than experiencing the discomfort and unpleasantness of uncertainty (Floden & Buchmann, 1993; Floden & Clark, 1988). Furthermore, our uncertainties and doubts can make us feel inadequate, especially when we compare ourselves to our own teachers, who we may remember as being very competent regardless of what their actual abilities may have been (Lortie, 1975).

As it turns out, many of the strategies that have been suggested for coping with uncertainties, such as teacher collaboration and reflective practice (Helsing, 2007) are also useful for dealing with unwarranted certainties. However, coping strategies may not be sufficient because unwarranted certainties lurk beneath the surface of our consciousness and are therefore, much more difficult to disrupt. Given that they are unconscious and highly resistant barriers to critical thinking, we believe that unwarranted certainties, such as myths, bandwagons, and moral panics present unique challenges to new teachers.

### **Myths, bandwagons, and moral panics**

As we have suggested, the myths, bandwagons, and moral panics that pervade education are socially constructed, often unconscious certainties that tend to resist disconfirming evidence. Since we tend to look for confirmation rather than refutation of what we already know, our assumptions, theories, and taken-for-granted beliefs can become significant barriers to critical thinking without us even realizing it (Kahneman, 2011). This tendency may explain, in part, the large number of seemingly illogical or loosely-coupled policies and practices that persist in education.

Whether something is labelled as a myth, bandwagon, or moral panic depends on a variety of factors, including our subjective and personal perceptions, the public and media interest that it generates, and the degree to which the issue or event is considered to be a threat to society. The Venn diagram in Figure 2 summarizes the main attributes of myths, bandwagons, and moral panics and highlights both their similarities and differences. As the diagram illustrates, *myths* consist of assumptions about teaching and learning which are the least susceptible to change of the three types of certainties. While myths are largely unconscious, most enduring and pervasive, bandwagons and moral panics tend to be short-lived and arguably more emotionally gripping. Like bandwagons, myths are mainly disseminated through word-of-mouth, including stories, anecdotes and testimonials which reinforce conformity and what Janis (1982) refers to as ‘groupthink’.

One common myth that pervades education is the myth of the normal child. The details vary, but when teachers are asked to describe a normal child, they typically portray a young person who bears a remarkable resemblance to the majority of teachers, that is, White, able-bodied, and native English speakers (Ulluci, 2007). Students who live in poverty, who come from non-English speaking homes, unfamiliar ethnic backgrounds, or have physical and mental capacities that differ from our conception of normalcy are sometimes seen as less desirable and more importantly, someone *else's* problem. Teachers have come to expect that any student who does not fit the profile of the normal child will be appropriately labelled, treated by specialized staff (often in segregated spaces) until their issues are resolved or at least manageable thereby *earning* them a place in the regular classroom.

Whether we will admit it or not, the myth of the normal child affects how teachers perceive their students. Within the first weeks of school (or even earlier), teachers judge how close students are to being normal and make assumptions about their ability to achieve. In addition to information gleaned from their colleagues, teachers' perceptions are bolstered by myths that certain student characteristics, such as body build, gender, race, ethnicity, given name, attractiveness, dialect, and socio-economic level correlate with achievement (Tauber, 1998).

We believe that the myth of the normal child represents the kinds of myths that new teachers should question and challenge. In this age of increasing student diversity, we challenge them to question the notion of 'normal' and we caution them about making assumptions about ability based on the characteristics listed above. As we will show later, being exposed to the historical, philosophical, and sociological foundations of education can help new teachers develop the habits of mind that will enable them to recognize such myths when they encounter them and challenge some of their underlying assumptions.

*Bandwagons* are often driven by gurus or experts who attract followers through their charisma and/or ideologies. They are quite susceptible to change and often recur over time. Bandwagons in education, especially those which cost money, tend to be implemented from the top down, usually without consulting those who are expected to implement them. Consequently, bandwagons may elicit cynicism rather rejuvenation, as one rolls through right after the other. Like moral panics, bandwagons tend to be rooted in myths and are time sensitive, over-generalized solutions that have a relatively short shelf life.

One common bandwagon is that of single sex education. Single-sex schools have remained a constant feature of the educational landscape of private school systems in Canada and the United States. However, they are found less frequently in Canadian public school systems and until recently, they were explicitly excluded from public school districts in the United States by federal law. In the 80s, single-sex classrooms began to appear in some Canadian public jurisdictions (e.g., Ontario and Manitoba), partly in response to the under-representation of girls in so-called gateway Math and Science courses that allow entry into high-paying professions. More recently, the increase in the number of single-sex classrooms has been driven by concerns about the under-performance of boys (Demers, 2007).

Summaries of the academic literature on single-sex education (Department for Children School and Families, 2009; Thompson & Ungerleider, 2004) suggest that there is little evidence to support the movement to single-sex classes and schools. Recent research (Ivinson & Murphy, 2007; Jackson, 2002; Salomone, 2006; Sullivan, 2010; Warrington & Younger, 2001) points to some advantages for females and disadvantaged minority boys but these effects are extremely difficult to replicate over time or to disentangle from other factors, such as social class and prior achievement.

Perhaps of greater concern, as Halpren et al. (2011) point out, is that 'there is evidence that sex segregation increases gender stereotyping and legitimizes institutional sexism.' Given that other types of separation, such as racial segregation, facilitate prejudice and perpetuate racist attitudes, this may not be a surprising conclusion and warrants further examination. Segregated

arrangements are ‘harmful because they provide an artificial world in which gender differences are reified as legitimate bases for disparate treatment, and males and females are both left unprepared to negotiate egalitarian relationships’. In fact, they point out that research on state-sponsored single-sex programs in California found that pedagogy that was purportedly designed to accommodate the so-called inherent differences between the sexes actually reinforced rather than broke down traditional gender stereotypes. Proponents, on the other hand, argue that ‘coeducational education has not eradicated sexism or broken down the silos of virility (considered a male attribute) and sensitivity (an attribute traditionally associated with women)’ and that it may be time to reassess the benefits of single-sex education (Demers, 2007, p.2).

We believe that bandwagons such as single-sex education represent the kind of unwarranted certainties that new teachers should question and challenge. We caution new teachers not to make assumptions about how their male and female students learn best. As we will show later, being exposed to the historical, philosophical, and sociological foundations of education can help new teachers recognize potential bandwagons such as single-sex education when they encounter them and ask for the empirical evidence underpinning such panaceas.

In contrast to the other unwarranted certainties, *moral panics* consist of exaggerated fears that surface suddenly and with a great sense of urgency. They are the most susceptible to change of the three and are often perceived to present a sense of imminent threat to society which can be blamed on identified groups or ideas which Cohen (1972) refers to as ‘folk devils’. Fears are amplified by the media and ‘moral entrepreneurs’ campaign for policies or laws to remove these co-called ‘threats’ to society. Like myths, moral panics over such things as youth culture, new technologies, and even new policies protecting the rights of LGBTQ students, fuel stereotypes, reinforce generalizations, entrench personal and collective biases, and establish cultural norms.

One example of a moral panic involves social media, cell phones, and violent video games. According to Thurlow (2007, p. 219), at the same time as youth are being cast as folk devils they are also being portrayed as ‘arch-consumers or tragic victims of technology’ in need of protection. To capture the prevalence of moral panics involving technology and youth, Marwick (2008, p.5) coined the word, ‘technopanics’. She characterizes these as focusing on new media forms which pathologize young people’s use of computer mediated technologies, focusing attention on hacking, file-sharing, or playing violent video games. Technopanics are attempts to modify or regulate young people’s behaviour, either by controlling their access or making restrictions that limit the freedom of the creators or producers of media products.

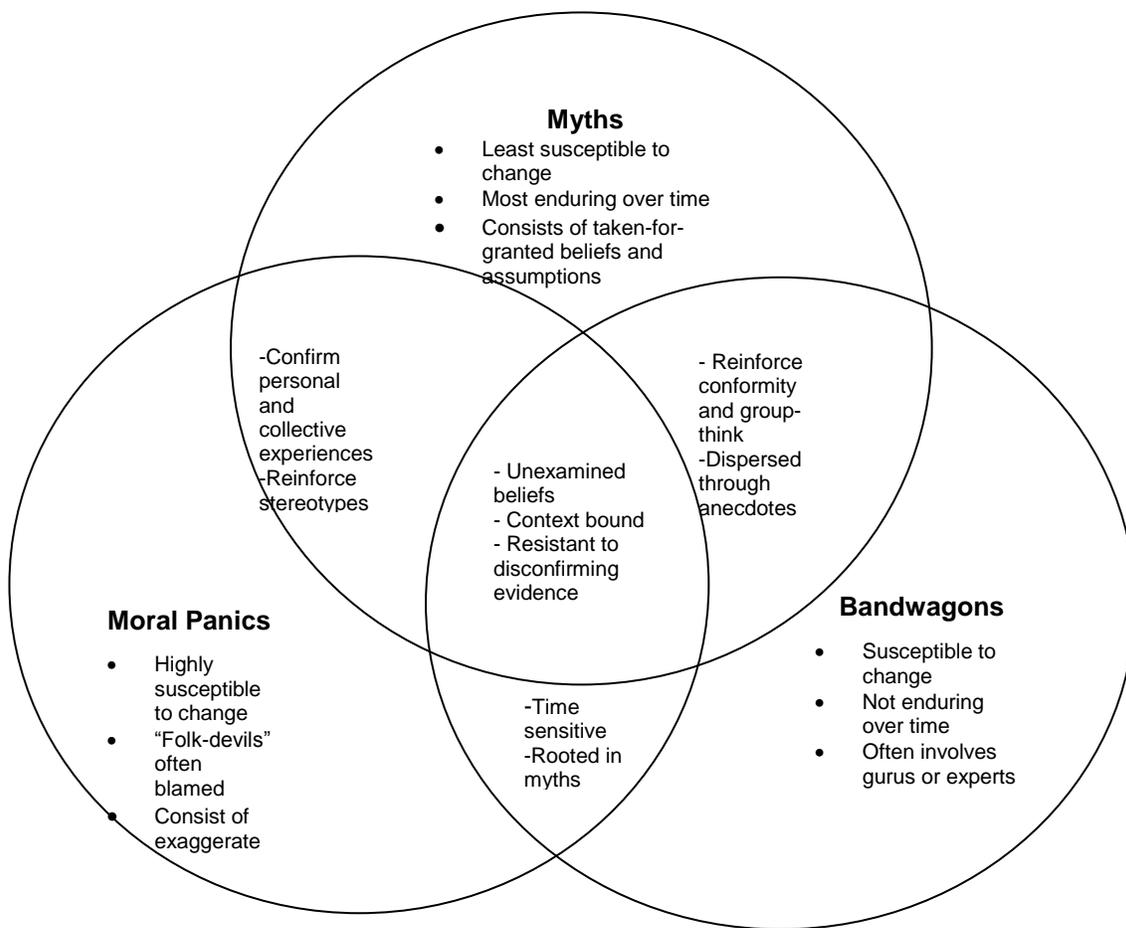
Technopanics are not new. Wartella and Jennings (2000) point out that exaggerated concerns about the impact of technology on youth were evident in the 1920s concerning movies, in the 1930s about radio, in the 1940s about comic books, and in the 1950s about rock ‘n’ roll and television. As they suggest,

With the introduction of each new wave of innovation in mass media throughout the twentieth century—film, radio, television—debates on the effects of new technology have recurred, especially with regard to the effect on young people. Each new media technology brought with it great promise for social and educational benefits, and great concern for children’s exposure to inappropriate and harmful content. (p.31)

Lynn (2010, p. 4) argues that these fears have led to ‘a perpetual state of moral panic regarding the impact of technologies on the development of youths since the early twentieth century.’

We believe that moral panics such as those that involve social media, cell phones, and violent video games represent unwarranted certainties that new teachers should question and challenge and we caution them not to make assumptions about the effect of new technologies on the dynamics in the classroom and on student learning. As we will show later, developing the habits of mind inherent in the historical, philosophical and sociological foundations of education will help new teachers to recognize moral panics when they see them and to question the fears to the well-being of society and the intense media coverage that they often involve.

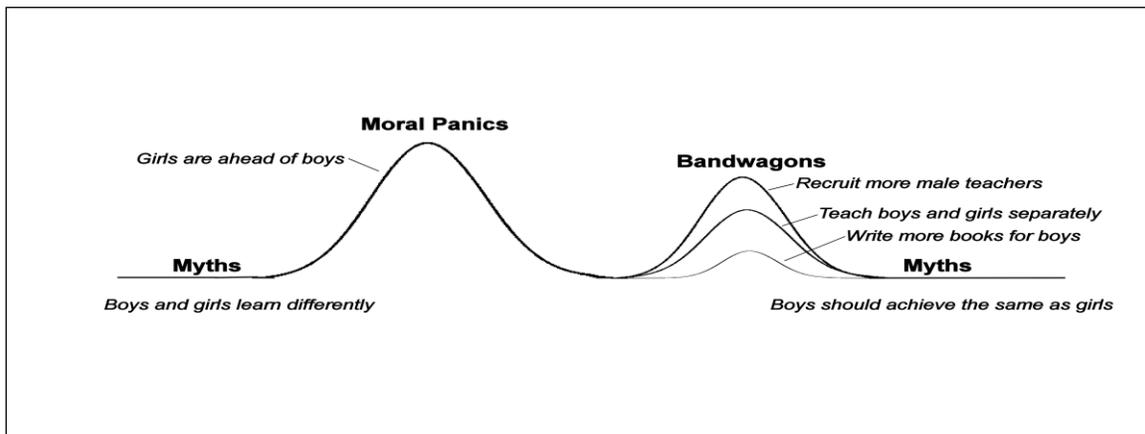
**Figure 2. Comparison of myths, bandwagons, and moral panics**



It is important to note that the boundaries between myths, bandwagons, and moral panics can vary and can even overlap at times, depending on the context. This overlap occurs, in part, because these barriers to critical thinking are often causally related to one another. As the example in Figure 3 illustrates, a taken-for-granted myth, such as *boys and girls learn differently* (Gurian & Henley, 2001) can fuel an alarm or moral panic, such as the overblown ‘boy crisis’. The substance of this moral panic is that boys are losing ground academically as a consequence of what some like Sommers (2000) believe to be ‘a war on boys’ and undue attention paid to

girls' ways of knowing. Once a moral panic like this takes root, a number of bandwagons may be launched in response. In this example, the responses include policies to recruit more male teachers, arrangements to teach boys and girls in single-sex classrooms, and calls for more books to be written with male protagonists and male-friendly themes (Weaver-Hightower, 2003). Often moral panics and bandwagons result in the cultivation of a new myth or a modification of an existing myth. To continue the same example, the slightly altered myth becomes *boys should achieve the same as girls*. By sharing this example, we do not wish to imply that unwarranted certainties are always or necessarily related or sequential, but rather that when we examine these more deeply, we can find meaningful connections and can become more aware of our unexamined beliefs.

**Figure 3. Interdependence of myths, bandwagons, and moral panics**



Rather than denying that we are unsusceptible to unwarranted certainties (after all, we are all experts on educational matters because we have all been students), we think that, as we have argued with the uncertain dilemmas of teaching (Mandzuk & Hasinoff, 2010), it is far better to acknowledge that they exist and to address them head on in systematic and explicit ways. To do so, we think we should be turning to the rich traditions of educational thought and methods of inquiry that are found in the foundations disciplines – history, philosophy, and sociology.

### **The Foundations of Education**

Why do foundations of education matter? We believe that the question is a timely and relevant one because foundations courses are either quietly disappearing from university syllabi or are increasingly relegated to the margins of teacher education. Although much has been written about the importance of the foundations of education in preparing new teachers (Butin, 2004; Christou & Bullock, 2013; deMarrais, 2013; Kerr, Mandzuk, & Raptis, 2011), there are increasing pressures to restructure teacher education to be more technical and rational (Hare and Portelli, 2003) or in other words, to concentrate more exclusively on matters related to curriculum and instruction. As a consequence, some universities and colleges have drastically reduced or even eliminated foundations courses altogether from their teacher education programs.

We believe that this trend is short-sighted since teacher candidates need to situate their learning in the roots of educational thought in order to understand and deal with both the inevitable uncertainties and unwarranted certainties of education. In arguing that teacher education programs need to revive the foundations of education and attend more closely to taken-for-granted certainties, Liston, Whitcomb, and Borko (2009) conclude,

What ails teacher education today is that it tends to offer programs fuelled by a quest for certainty and motivated by a misplaced sense of efficacy and power. We need to understand that the wisdom of practice is much messier than the certainties we provide, much more provisional than the prescriptions we offer, and filled with a degree of human and educational tension that cannot be ignored (p. 110).

We argue that the history, philosophy, and sociology of education raise questions that often go unaddressed and provide new teachers with a specialized language and the habits of mind which enable them to converse clearly and meaningfully about both the uncertain and certain aspects of their practice. Perhaps more importantly, the rich traditions of these disciplines expose new teachers to the kinds of critical conversations and intractable dilemmas that can engage them in “substantive inquiry, intellectual debate, and deep reflection” (Butin, 2004, p.1). In fact, the foundations disciplines not only focus our attention on what should be the aims of education, but they also provide,

...a conceptual lens through which to view teaching and learning, a beginning understanding of schools and school systems, as examples of social structures, an awareness of the racial, ethnic, and socio-economic disparities that exist in society and in schools, and an opportunity to critique current educational practices and the gap that exists between what we *say* we do and what we *actually* do in schools (Kerr, Mandzuk, & Raptis, 2011, p.123).

Although, history, philosophy, and sociology are often perceived as being separate and disconnected from the rest of teacher education, we agree with Shulman (1990, p. 304) that they “must be seen as an integral part of the connective tissue that gives shape and meaning to the education of teachers - as the framework for connecting and integrating the knowledge acquired in the liberal arts and sciences with the practice of pedagogy.”

### **History of Education**

Foundations scholars make the connection between theory and practice explicit by posing specific kinds of questions that bring unwarranted certainties to the surface and encourage beginning teachers to interrogate what they think they already know. By becoming ‘historically-minded’ (Osborne, 2001), beginning teachers can take an active approach to questioning their own and their collective past and gain a deeper understanding of it. Apart from learning from specific past events, an awareness of history enables beginning teachers to situate their own experiences, to distil their teaching strategies while broadening their ‘conceptual scope’ and establishing a ‘range of possibilities for action’ (Greene, 1973, p. 181). In other words, learning how to interrogate historical contexts through historical inquiry effectively counters an increasing trend for trying to find the elusive one ‘right way’ to teach (Liston, Witcomb, & Borko, 2009). In this light, posing essential historically-minded questions, such as the following, provides at least a partial antidote for this type of one-dimensional thinking:

- Is the source trustworthy and is the evidence reliable?
- How does knowing the context inform our understanding of the events?

- Are the claims supported by reasoned argument and evidence?
- What might be a counter-claim and can it be better supported?
- Can we corroborate the account?

In addition, historically-minded questions, such as these, enable beginning teachers to situate myths, bandwagons, and moral panics more effectively. Given that many of these current barriers to critical thinking are variations of themes from the past, those who examine sources carefully, check the claims and the context in which they are made, and withhold judgement until evidence can be corroborated, are developing habits of mind that are essential for effective teaching.

### **Philosophy of Education**

As Forrest, Hare, and Kerr (in press) state, “to the casual observer, philosophical inquiry can seem like an ordinary conversation.” In a conversation, contradiction is not an impediment. It is common for us to answer ‘Fine’ when asked ‘How are you?’ and in the next breath, list off a series of complaints which contradict the opening statement. Whereas a conversation may go this way and that without any particular purpose beyond a pleasurable exchange, the dialectical process has direction, however difficult and circuitous. When difficulties arise over, say, the definition of a term, the pleasant banter of conversation ceases. Such conceptual difficulty is the core of philosophical inquiry; it leads to deeper questioning that uncovers assumptions or contradictory claims.

Forrest, Hare and Kerr (in press) argue that contradiction flourishes in our age of instantaneous, mass-mediated information; the spirit of contention has become a form of entertainment. When sound-bites dominate substance and trash-talk undermines reasoned discussion, dispute reigns in a dialogical fight to the finish. Winning matters more than good reasoning, and often the winner is the loudest and most persistent in spite or even *because* of flawed reasoning. We need to recognize the difference between discussion and disputation and, as educators, intervene when the former degenerates into the latter.

Whether one is dealing with contradictions, discussing what knowledge is of most worth, or trying to determine what ethic is exemplified by a complex cartoon character like Homer Simpson (Irwin, Conrad, & Skoble, 2001), philosophical inquiry provides beginning teachers with access to the thinker’s universal toolkit. Perhaps the most practical tools to be found inside are essential philosophically-minded questions such as the following:

- Which assumptions might be questionable?
- What underlying beliefs should be exposed?
- Are the arguments and counter-arguments logical?
- What relevant conclusion(s) can be drawn?
- What other evidence might I need?

Questions such as these help beginning teachers examine their beliefs and practices, use their own sense of judgment, and adopt an open-minded outlook when faced with dilemmas of practice, new innovations, and claims to ‘cure the ills’ of the typical classroom. In doing so, they are more likely to reject false or specious arguments, develop increasing skill in making logical and relevant inferences, and imagine the implications of their conclusions. In other words,

teachers with these habits of mind will be less likely to succumb to the myths, bandwagons, and moral panics that pervade education.

### **Sociology of Education**

We think that teacher candidates need to look for evidence to understand social relationships and structures. In the poem, *Under Which Lyre*, written in 1946, W.H. Auden (Mendelson, 1976) cautions, “Thou shalt not sit/ With statisticians nor commit/ A social science” and some, like Canada’s Prime Minister, Stephen Harper, apparently agree with the poet’s satirical advice. However, if we are to expose the pervasive myths, bandwagons, and moral panics that create invisible barriers to critical thinking, we need to continually ‘commit sociology’. We need to ask important sociologically-minded questions such as the following:

- How do social structures, such as schools, both enable and inhibit learning?
- How do social norms, roles, and identities affect teaching and learning?
- In what ways do factors such as gender, socio-economic status, and ethnicity limit or expand educational opportunities?
- What is the role of human, social, and financial capital in education?
- How can we prevent or at least minimize the marginalization and alienation of certain sub-groups in our schools?

Beginning teachers who develop the habit of systematically interrogating their practice from a sociological perspective are more likely to develop a sophisticated understanding of their experiences. Sociological perspectives expose societal fault lines and can serve as a springboard to complex debates about the very nature of schools and their role in society. Furthermore, teachers who apply sociologically-minded questions to their educational experiences will be better able to develop strategies for managing the dilemmas that often arise from the myths, bandwagons, and moral panics that characterize much of teaching and learning in the 21<sup>st</sup> century.

### **Conclusion**

According to Beadie (1996) the most important contribution of the foundations disciplines, beyond helping beginning teachers to recognize teaching dilemmas when they are faced with them, may lie in helping them to develop the habits of mind that will enable them to identify and understand the values that often conflict in educational contexts. There are often no pat answers and so seeking ready-made solutions to problems simply doesn’t make sense and is not a good use of a new teacher’s time. (Mandzuk & Hasinoff, 2010). We think that if beginning teachers are exposed to the foundations disciplines, they will be more likely to recognize unwarranted certainties when they are faced with them; furthermore, we think that they will also be less likely to let their assumptions about teaching and learning go unexamined, less likely to place their faith in educational panaceas, and more likely to resist unsupported fears about threats to the well-being of society.

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## Students' Satisfaction with Learning Environment at the College of Nursing, Sultan Qaboos University in Oman

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**Abstract:** *Students' satisfaction of the learning institute is a key factor of importance in bringing the student's learning outcome to a better experience and success. A special Royal Degree of His Majesty Sultan Qaboos Al Said issued a message to address the shortage of Omani nurses.*

*Purpose: The aim of this study is to identify aspects of educational factors that enhance the over-all students' satisfaction with their study at the College of Nursing, Sultan Qaboos University.*

*Methods: A self-report questionnaire was used to obtain demographical data and responses to 38 items about the learning environment. Results: Students rated satisfactory the general arrangements for orientation and welcome to all students in the beginning of the academic year (p value of 0.006 ) and the extent to which the programme develops their knowledge & skills ( p value of 0.008 ) Conclusion: The growing gap between the students' satisfaction and the educational system is a crucial issue facing the educational institution policy-makers to improve nursing education and development.*

**Keywords:** Students' satisfaction, nursing program, learning resources, learning institution

### Introduction

The measurement of student satisfaction of the learning environment can be a significant factor to quality outcome of the educational services offered by the University. The complexity of the learning experiences of the students in a learning institution can forecast the level of student's satisfaction. Determining the student satisfaction will streamline the aspects of learning experiences that contribute to the student learning outcome and success. Wei (2011) documented in her study that service quality is a vital factor that determines the level of student satisfaction. Literature reviews have shown the number of studies conducted on service quality and customer satisfaction in the field of marketing/management, but limited research on service quality in higher education has been recorded (Wei, 2011; Jalali, et al., 2011 ; Hameed, 2011 ) Few of research studies on service quality in higher education institutions supported that student's satisfaction towards university services is a crucial determinants of institutional survival, excellence as well as success (Wei, 2011) . According to the study of David Edens (2012), students who are satisfied with their college experiences in the University tend to persist to graduate from their specialization. Using the student satisfaction score, the College and University administration can identify the areas for improvements to fit with students' basic physiological human needs to self-actualization. Muhammad et al., (2010) documented in his study that the more the learning environment stimulates the student's ability to groom their skill development, course knowledge and mentality, the higher the level of student satisfaction of the learning environment. The matching of the services with the student's needs can increase the level of satisfaction of the students of their learning environment.

## **Background**

Over the past years, the government of the Sultanate of Oman through a special royal decree of His Majesty Sultan Qaboos Al Said has initiated to establish the first college of nursing within the state university. The opening of the college of nursing at Sultan Qaboos University (SQU) will address the shortage of Omani nurses and increase the number of Omani students of becoming nurses. This effort or initiative is having a positive effect as enrollment in the nursing program is increasing. Recruiting students for nursing profession is a key challenge for the higher education policy-makers at SQU. The performance of an educational system ultimately depend on the quality and opportunities offered by the College of Nursing to the students. Students' success clearly depends on the level of satisfaction about their learning experiences which stimulate them to study diligently, be flexible and be willing to carry out their academic load with good achievement. It is important to understand what drives student to study better, what influences their choice of action and why they persist in an action for success over time. There are many theories to explain satisfaction such as the human needs theory of Abraham Maslow (1975) and goal setting theory (Campbell & Pritchard, 1976). These theories used a set of concepts and constructs in order to link the reasons why people work hard with the outcome of their work and then analyze the needs, values, goals, efforts, rewards and expectations of students in relation to their study. This study is conducted to look into services provided by the College of Nursing and the level of student's satisfaction at SQU which is the oldest state university at the Sultanate of Oman. According to Amina Hameed (2011), earlier studies and models on student satisfaction and retention conclude that academic performance makes a part of student satisfaction. The present study can be postulated as to what extend the services affect student satisfaction at the College of Nursing in SQU and contribute to the body of knowledge on educational service and student satisfaction.

## **Significance of the Study**

The aim of this study is to identify aspects of educational factors that enhance the over-all students' satisfaction of their study at the College of Nursing, Sultan Qaboos University, Sultanate of Oman. Determining the educational factors associated with students' satisfaction can provide information for significant action that can be taken to bring impact on students' learning outcome in nursing program. One variable that needs to be explored is the impact of student's GPA on satisfaction of the learning institute and success.

## **Conceptual Framework**

Using Abraham Maslow's human needs theory (1975) as a conceptual framework, this study was conducted to determine student's satisfaction across four areas of learning environment that contribute to student's growth and development. The Maslow's Hierarchy of human needs which demonstrate how a person moves from a fulfillment of basic needs such as physiologic; safety and security, belongingness and affection; and to higher level of needs of self-esteem, self-respect and self-actualization with the ultimate goal of being integrated physio-psycho-social wellbeing (Smeltzer & Bare, 2010). Maslow's human needs theory is a useful organizational framework that can be applied to various nursing models for assessment of strengths, limitation and need for improvement. The framework is widely used in nursing education and practice. The four areas of the learning institute based on Maslow theory which identifies the contributing factors that lead to student maturation and self-actualization while at the college of nursing in SQU are:

- Physical facilities: the extent to which student are able to meet their basic physiological needs such as availability of restaurants, food quality and price, hygienic practice of the staff, health clinics, prayers space, resting & study space, toilets & other comfortable utilities (Classrooms, computer labs., skill labs, parking).
- Resources: the extent to which student are able to meet their needs for library, Internet access, books and journals, photocopying, printing press, medical supplies and equipment, and other digital resources,
- Nursing Curriculum organization & management: the extent to which the students are able to register courses and managed their timetable of their study plan; to follow through the contents and quality of presentation of the major subjects and availability of faculty in/out of class hours; to manage the rubrics of assessments
- Development of knowledge and skills: the extent to which student are able to learn scientific knowledge and demonstrate skills of communication, interpersonal, decision making & logical judgment, self-reliance, English language

**Rationale:**

Students’ satisfaction of the learning institute is a key factor of importance in bringing the student’s learning outcome to a better experience and success. Based on the literature reviews, the following hypotheses were formulated:

H1: There is a positive relationship between the Institutional service and student satisfaction

H2: There is a positive relationship between student’s perceived importance on service and student satisfaction.

H3: There is a positive relationship between the student’s GPA and student satisfaction of services of the learning institution

H4: There is a significant difference between services and student satisfaction among male and female.

H5: There is a significant difference between service and student satisfaction according to student’s age.

H6: There is a significant difference between service and student satisfaction according to student’s level of study at the College of Nursing.

**Method**

**Participants**

The sample included 67 basic entry BSN students (87%) and RN to BSN bridging students 10 (13%). There were 17 male students (22.08%) and 60 female students (77.92%). Majority of the participants in this study are level 2 (30 students = 38.96%) followed by level 4 (22 students = 28.57%). The ages of the students ranged from 18 years old to 34 years old (M=18.65, SD=2.30). The demographic statistic of this study is shown in Table 1.

**Table 1 – Demographic Statistics (N=77)**

Variables	Frequency	Percentage (%)	Mean ( $\mu$ )	SD ( $\sigma$ )
Age				
<18	20.00	25.97	18.65	2.30
20 – 25	40.00	51.93		
26 – 35	17.00	22.10		

Gender				
Male	17.00	22.08	2.20	0.55
Female	60.00	77.92		
Level of Study				
Level 2 (Year 2)	30.00	38.96	3.50	0.75
Level 3 (Year 3)	17.00	22.17		
Level 4 (Year 4)	22.00	28.57		
Level 5 (Year 5)	8.00	10.30		

### Procedures and Measurements

The data were collected from a survey of nursing students from level 2 to level 5 in the nursing program who are currently registered at the College of Nursing during the academic year 2009-2010. The data were collected toward the end of the spring semester and participants in each level in the nursing program were given a self-report questionnaires. The questionnaire was constructed based on Keaveney and Young Model (1997), wherein the students' experiences on his/her connection with faculty, advising staff, the environment and interactions in the classroom are factors that enhanced student's satisfaction with learning environment. The model instrument has been documented its Cronbach's alpha value of 0.7, but in the literature review values above 0.5 are considered to be acceptable (Amina Hameed & Shehla Amjad, 2011). The Keaveney-Young Model and variables were modified to fit the major of specialization in nursing. The self-report questionnaire was constructed on a five point Likert scale from 1 (very satisfied) to 5 (very unsatisfied) and to response to its importance from 1 (very important) to 5 (not at all important). The inter-rater reliability of the modified version from 4 experts was 86 % in all 38 items. The self-report questionnaires include the student's demographical data such as age, gender, level in nursing program and GPA. The students are requested to rate their level of perceived importance and satisfaction towards the college services provided in the area of: (1) Physical facilities, (2) Resources (3) Nursing curriculum organization & management, (4) Development of knowledge and skills.

### Ethical Consideration

The study was approved by the college & university research committee. An informed verbal consent was taken from each student who participated in the study and adherence to confidentiality of the information was communicated to all participants.

### Results

The study hypothesized that there is a positive relationship between the Institutional services and student satisfaction. It was found out that students who are satisfied of the quality of the service of their learning institute persisted to continue their nursing study at Sultan Qaboos University. The results is shown in Table 2. The performance gap wherein the satisfaction mean score is subtracted from the mean score of importance results in a smaller difference which shows that the College of Nursing is doing well in meeting the expectation of the students in their studies. There is a positive relationship between perceived importance on services and student satisfaction. The study found out that all four areas of services perceived by the students as importance were rated as highly satisfactory as shown in Table 2.

**Table 2 – The overall importance and satisfaction mean rating for each areas of service offered by College of Nursing at SQU.**

Initial Service Area	Importance	Satisfaction	GAP
Physical Facilities	2.90	4.60	-1.7
Resources	3.80	4.60	-0.8
Nursing Curriculum	3.40	4.70	-1.3
Development of Knowledge and Skills	3.80	4.60	-0.8

There is a positive relationship between the student’s GPA and student satisfaction of service quality of the learning institution as shown in Table 3. The higher the students’ GPA , the stronger the level of satisfaction and importance on certain aspects of the learning institution.

**Table 3 – Relationship between aspects of learning institution and students’ GPA**

Aspects of the learning institution	R	P
General arrangements for orientation & welcome (S)	0.296	0.025*
General arrangements for orientation & welcome (I)	0.372	0.006*
The extent to which the nursing program develops their knowledge & skills (I)	0.349	0.008*
The physical environment of the computer labs (I)	0.344	0.013*

*\*p value=0.05 level of significant*

*I= Importance S= Satisfaction*

H4: There is a significant difference between service quality and student satisfaction among male and female. The results are illustrated in Table 4. The male students’ mean score of all aspects of the learning institution are higher than the female in physical facilities and resources and the female students rated curriculum and development of knowledge and skills as more satisfactory than male.

**Table 4 – The satisfaction mean rating of male & female on four areas of learning institution**

Variables	Male	Female
Physical Facilities	4.8	4.0
Resources	4.3	3.6
Curriculum	4.0	4.2
Development and Knowledge Skills	4.5	4.6

There is a significant difference between service quality and student satisfaction according to student’s level of study at the College of Nursing as illustrated in Table 5. There is a significant findings of certain aspects of the learning institution rated as importance (assessment; development of knowledge & skills; overall quality of the nursing program and sport and fitness facilities). The other aspects that were rated highly satisfactory are procedures of registration, process of registration, physical environment, cleanliness and helpfulness of the staff in the restaurants, the quality of food & drinks, availability of courses, the opening hours of computer lab and access to the internet.

**Table 5 – Satisfaction and importance of aspects of the learning institution by students’ study level.**

Aspects of Learning Institution		Sum of Squares	df	F	P
<b>Importance</b>					
The Assessment (Exams) Arrangement	Between Groups,	5.563,	4 , 121	3.798	0.600
	Within Groups	44.310			
The Extent to which the program develops your knowledge	Between Groups,	6.644,	4 , 127	3.876	0.005*
	Within Groups	54.417			
The overall quality of nursing program	Between Groups,	5.088,	4 , 120	2.951	0.023*
	Within Groups	51.712			
The sport and fitness facilities	Between Groups,	12.685,	4 , 123	2.609	0.039*
	Within Groups	149.534			
<b>Satisfaction:</b>					
Procedure for registration at the university	Between Groups,	14.237,	4 , 129	2.748	0.031*
	Within Groups	167,106			
Process for registration for lab course	Between Groups,	18.309,	4 , 130	3.122	0.017*
	Within Groups	190.624			
Physical Environment at the University	Between Groups,	24.060,	4 , 128	5.426	0.000*
	Within Groups	141.819			
Cleanliness of university restaurant.	Between Groups,	42.195,	4 , 127	7.448	0.000*
	Within Groups	179.8664			
The helpfulness of the university restaurant staff	Between Groups,	35.201,	4 , 128	5.587	0.000*
	Within Groups	201,628			
The quality of foods and drinks	Between Groups,	19.175,	4 , 129	3.477	0.010*
	Within Groups	177.847			
Availability of courses to make progress towards the degree	Between Groups,	13.698,	4 , 126	2.731	0.032*
	Within Groups	158.012			
Opening hours of the computer lab	Between Groups,	24.597,	4 , 126	3.075	0.019*
	Within Groups	251.983			
Your access to Internet	Between Groups,	17.681,	4 , 128	3.268	0.014*
	Within Groups	173.131,			
		190.812			

\*p= 0.05 level of significant

There is a significant difference between service quality and student satisfaction according to student’s age. The younger students were less satisfied than the older students in all aspects of the learning institution. The results were shown in Table 6.

**Table 6 – The satisfaction mean rating of aspects of learning environment**

Variables	<18	20 – 25	26 – 35
Physical Facilities	3.0	4.0	4.2
Resources	3.0	4.5	4.8
Curriculum	2.5	4.0	4.5
Development and Knowledge Skills	2.5	4.0	5.0

Likert scale from 1 (very satisfied) to 5 (very unsatisfied) and to response to its importance from 1 (very important) to 5 (not at all important).

## **Discussion**

The purpose of this study was to identify aspects of educational factors that enhance the over-all students' satisfaction of their study at the College of Nursing, Sultan Qaboos University, Sultanate of Oman. The study supported that the educational factors that satisfy the nursing students of their learning environment are more related to meeting their basic human needs (physiologic; safety & security, belongingness & affection ) and meeting the needs of higher level of maturity and self-actualization as they progress from level 1 to level 5 in their nursing program, The Omani Nursing students rated all aspects of learning institution as to curriculum program, registration and orientation, teaching-learning resources, food and other support services like banking, mosque, transport, post office , books for student's copy and others. A significant level of p value of 0.05 was adopted for statistical analyses of the relationship between aspects of learning institution and students' GPA; gender; age; and student's level in the nursing program. The outcome of this relationship showed significant in two factors: Firstly the general arrangements for orientation and welcome to all students in the beginning of the academic year (p value of 0.006) and the extent to which the programme develops their knowledge & skills (p value of 0.008) which are perceived by the students as importance aspects in their learning institution.

## **Conclusion:**

Keeping the right students in the right place in the nursing program requires identifying and understanding the factors affecting students' satisfaction. Satisfaction at learning environment is widely believed to be a key factor in the performance of students and educational institution as predictors of better learning experience and success. Students that are satisfied will most likely be more motivated, loyal and good performers in their academic achievement. The growing gap between the students' satisfaction and the educational system is a crucial issue facing the educational institution policy-makers to foster a better nursing education and development. And eventually to attract more students into nursing and increase more Omani nurses in the workforce

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## **Express Yourself: Improving Literacy in Under-performing Students through Literacy Identity Development, Mobile Devices and a Critical Digital Literacies Pedagogy**

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**Abstract:** *This study examines the impact of a critical digital literacies pedagogy and the use of multimedia tools to induct under-performing students into a community of practice. More specifically, our study examines how the use of a critical digital literacies pedagogy can potentially transform teaching and help accelerate the development of struggling learners' literacy identities and, therefore, practices to become change agents in society. The study uses a qualitative case study analysis to investigate this relationship. The preliminary findings indicate the development of literacy identities in the students – from individuals who are under-performing in the language arts, to 'tech-experts' proficient at understanding and synthesizing information/ideas and collaborating with others to generate/communicate knowledge.*

**Keywords:** digital literacies, critical literacy, literacy identity, language arts

### **Introduction**

Literacy in the digital age has developed into a “repertoire of changing practices for communicating purposely in multiple social and cultural contexts” (Mills, 2010, p. 247). It does not only involve reading and writing anymore but also meaning-making with images, sound and movement (Coiro, Knobel, Lankshear, & Leu, 2008). This is an important development for struggling learners, as now more than ever, there exists an opportunity to engage and include these students who may have previously remained on the periphery of the classroom learning community due to a deficit in traditional reading and writing skills. Regardless of their traditional skills, however, these students engage in a variety of literacy practices out of school through gaming, online social networking, multimedia creation, re-mixing and so on. Importantly, Anstey and Bull (2006) suggest that “these domains or discourse worlds help form a person’s literacy identity, providing a repertoire of resources that a person can draw on when engaging in literate practices” (p.34). They further note that a student’s literacy identity “includes social and cultural resources, technological experience, and all previous life experiences, as well as specific literacy knowledge and experience” (p.35). So, literacy practices shape and are shaped by identity and they have changed significantly in the digital age. As a result, if we want to engage and support struggling learners, so that they succeed in developing positive literacy identities and skills, we need to draw heavily on digital and multimodal tools.

Public education in the 21st century is challenged with ensuring all Canadians have the requisite skills to participate in a digital, knowledge-based economy, an aspiration increasingly difficult to realize under present-day conditions of austerity in both K-12 and post-secondary education. The notion of a “digital divide” typically emphasizes unequal access to digital technologies, software and hardware, as well as the quality of Internet connectivity (Livingstone & Helsper, 2007; Warshauer, 2002). Still a significant barrier for many Canadians, a troublesome complementary issue focuses on unequal literacy and computational skills to engage

with technology. The proposed research addresses the need for concerted attention by faculties of education to the conceptual and operational challenges of assuring “digital literacy” across the digital divide. Its primary purpose is to build a research-based model for achieving education and equity in the 21st century, by bringing the resources, strengths, skills and expertise of faculties of education directly to bear on the ‘digital divide’ evidenced in low socio-economic status (SES), high-needs schools in order to assist them in improving the educational successes of their students.

As the demographics surrounding our faculty of education are characterized by low-income households and by public schools with lower rates of achievement, we wanted to work with one of the local elementary schools to help develop both the traditional and new literacy skills of under-performing students in one high-needs classroom. Our goal was to leverage the power of the university to develop sustainable, collaborative capacity for leveling the playing field for students and teachers.

Specifically our research investigated how the use of a critical digital literacies pedagogy, which takes place at the intersection of critical literacies and digital literacies, 1) potentially transforms teaching, and 2) helps accelerate the development of under-performing students’ literacy identities, practices and skills so they can become agents of change in society.

### Theoretical Framework

Working from an “asset model” that assumes that using new technologies can work as a benefit to literacy instead of as a deficit (Mackey, 2002), we employ a critical digital literacies pedagogy for this study. A critical digital literacies pedagogy takes place at the intersection of critical literacies and digital literacies (Jones & Hafner, 2012; Lankshear & Knobel, 2008). At its core, this pedagogy helps students in the areas of agency and identity development. It teaches them to become critical producers and consumers of digital texts within and for a variety of contexts and social practices (Selber, 2004), improving students’ traditional and new literacies skills through the multimodal communication affordances (Author 1 & Author 2, 2013). Nelson (2006) explains that multimodal practices allow students to understand and express meaning in ways that do not rely solely on linguistic communication and Lotherington and Jenson (2011) explain that multimodal communication is dynamic, as a reader can enter texts “in new and exciting ways” (p. 227). A critical digital literacies pedagogy draws on nine elements of digital literacies, shown in Figure 1.

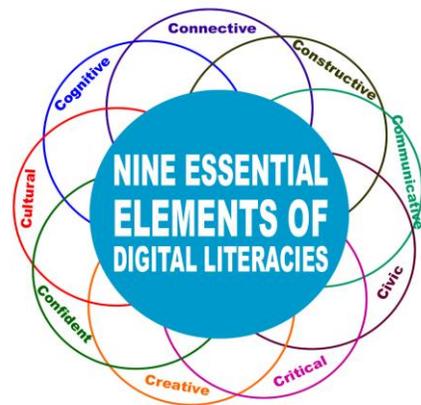


Figure 1: 9 Elements of Digital Literacies

Thurlow and Bell (2009) explain that the academic and social affordances of new, digital texts need to be carefully considered for use in the contemporary classroom, as modern adolescents exist in a participatory, digital culture. Furthermore, the use and creation of digital texts in the classroom can help students make the connection between their new/out-of-school literacy practices and their participation in civic, political and social justice structures.

Furthermore, Hughes (2008; 2009) and Östman (2012) believe that the performative potential of digital media can facilitate student engagement in the exploration and creation of digital texts surrounding social justice issues, as students can share their creations with others and feel agentive. Emancipatory actions can encourage students to write, read, and re-write their world, bridging literacy, human agency and the power to “effect social transformation” (Janks, 2010, p. 161). It is in their various discourse worlds and literacy practices (both in- and out-of-school) that student make meaning and construct their literacy identities (Antsey & Bull, 2006; Cope & Kalantzis, 2000).

Finally, we draw on Lave and Wenger’s (1991) Legitimate Peripheral Participation [LPP] to induct students with lower literacy skills into the community of practice. Lave and Wenger (1991) suggest that one way to induct learners into a community of practice is to set up a situation for Legitimate Peripheral Participation [LPP]. In this situation, a student participates in simple and low-risk tasks that contribute to and facilitate the goals of the community. Through these low-risk activities the novices acquire the skills and knowledge to take on greater responsibility – slowly, the novices are inducted as central members in the learning community.

A critical digital literacies approach aligns with modern adolescents’ participatory culture, out-of-school literacy practices and leverages the educational potential of digital tools and technologies to induct lower-functioning students into the classroom community.

## **Methodology**

Since this research focused on the transformation in teaching practices and student learning, an ethnographic case study approach was suitable. Creswell (1998) defines ethnography as a description and interpretation of a social or cultural group or system. The researchers were socially and physically immersed in the case, leading classroom activities and discussions, and thereby accumulated local knowledge. The case study method is appropriate for studying a ‘bounded system’ (the thoughts and actions of participating students or the learning-community connection of a particular education setting) so as to understand it as it functions under natural conditions (Stake 2000). Using an ethnographic case study approach allowed us to observe the actions and events that took place in the classroom. Finally, Bruce (2009, p.302) explains that case studies “provide the best articulation of adolescents’ media literacy processes, especially as much of the emergent forms of their use has not been studied.”

## **Participants**

The study had a total of eight students between the ages of 11 and 12. There were four boys and four girls, who were identified with a variety of cognitive, behavioural, emotional and developmental exceptionalities, which included fetal alcohol syndrome, oppositional defiant disorder, various learning disabilities, anxiety, and post-traumatic stress disorder. All of the students in this program came from government-approved care, treatment, custody or correctional facilities within the Durham jurisdiction. In addition, the students had a range of experience with, and access to, technology and different digital tools both at home and in school from previous grades. The students’ digital literacy skills also ranged significantly, for example, four of the students were experienced online gamers. Although their traditional literacy skills were low, scoring at level one or two according to Ontario achievement criteria, they were intuitively able to figure out any of the digital programs we were using that may have had similar commands. While all of the students knew basic Internet skills, like searching for images on

Google or for videos on YouTube, they did not have fine-tuned digital or critical literacy skills, like how to download and/or organize digital files for easy access, or how to analyze digital texts for deeper meaning and understanding. A few of the students had been exposed to some online educational programs like Bitstrips, but the majority had limited experience using iPads and laptops in a school setting. All of the students had marked gaps in their learning and in their general knowledge of the world, that ranged from items like how many provinces there are in Canada, who are the Indigenous people in Canada, what was the Holocaust and how to write a newspaper article.

### **Selection Process**

Both purposive and convenience sampling techniques were used in determining the grade level and the school in which the research would be conducted. We wanted to work with one of three lower-achieving elementary schools located near our university, as one of the goals of the project was to develop a local schools-university partnership and to help increase academic achievement rates in the community. All three local schools volunteered to be part of the pilot project for the 2013/2014 academic school year. For the purposes of this paper, we report on findings from participants in a class from an alternative school (for students who are unable to attend a community public school because of placement in care, treatment, custody or correctional facilities) volunteered to participate in this particular research.

### **Setting**

The study was conducted in two locations in downtown Oshawa, Ontario – our Faculty of Education’s new Digital Literacies Research and Development Lab and the students’ own classroom. Our lab is equipped with two Mac minis, Apple TV, a Smart Board, digital projector, two microphones with voice-recording capabilities, iPads and MacBook pros. When the students were in our digital literacies lab, they brought with them their class-set of eight iPads. When the students were in their classroom, they had access to their iPads, eight mobile laptop PCs and three desktop PCs.

### **Research Design & Process**

Through an integrated arts-based curriculum, with a thematic focus on community and identity, the students learned about historical and modern Indigenous issues and bullying. The students were first introduced to Indigenous culture and history through the graphic novel series, *Rabbit and Bear Paws* by Christopher Meyer, Tanya Leary and Chad Solomon. This series is based on the teachings of the seven grandfathers, which is a collection of teachings used to instruct people on how to act and treat each other. They include: wisdom, love, respect, honesty, humility and truth. The students also participated in a smudging ceremony, led by a local Indigenous elder and read two additional Indigenous-themed novels -- one of which dealt with the residential schools system titled, *Fatty Legs* by Christy Jordan-Fenton and Margaret Pokiak-Fenton and one that dealt with Indigenous circle justice titled, *Touching Spirit Bear* by Ben Mikaelson.

#### *The Sugar Bush*

To introduce the students to Canadian Indigenous culture, geography, and history (with a specific focus on colonialism) we started the unit with the graphic novel, *The Sugar Bush*. In order to engage the students, and to make the reading process more interactive and creative, the students were broken up into small groups and were each given one section of the story to read.

They were challenged to make informed predictions about what had come before in the story and what would most likely follow after, based on what they read in their section. The students were then challenged to choose a creative way to interpret and represent their section of the story for presentation to the rest of the groups. When everyone finished, the sections were shared and the story was linked together. A brief discussion followed that focused on who Canadian Indigenous people are, what they value in their culture and where they live. The following session continued this conversation and included a deeper character reflection where the students were asked to choose a character and answer questions in the hot seat as that character. Here, we were interested in having the students explore perspective, empathy and character.

### *The Voyageurs*

We then introduced the students to the voyageurs – an important aspect of Indigenous history – through the graphic novel, *The Voyageurs*. In this lesson, the students first did a pre-reading webquest, where they searched on the Internet, using only reputable websites, for the answer to the following question: Who were the Voyageurs? The students then took their information and put it into a mini-presentation using the free, web-hosted presentation software, Prezi.com. The students shared their Prezis with their classmates to further encourage collaboration and community building. After, the students were broken up into smaller groups for literature circles with assigned reading roles, for example, word wizard, artist, discussion director, and predictor.

### *True Hearts*

To explore more deeply Indigenous culture, including the seven grandfathers, the historical familial/male/female roles and the role of nature and the community, we read the graphic novel *True Hearts*. As a pre-reading activity, the students created a digital collage on the iPads using any art-making app, like GoodNotes, that allowed the import of images, video, sound and/or text responding to the prompt: "What does it mean to love others?" We then read the story as a class; at the end, the students created tableau representations summarizing key plot points.

### *Fatty Legs & The Smudging Ceremony*

To have the students better understand the residential school system and the injustices many Indigenous communities suffered during this time in Canadian history, we read the novella *Fatty Legs*. This text explores one girl's difficult experience as an Indigenous student in a residential school. Specifically, the book focuses on the emotional and psychological abuses many students suffered and the loss of their culture and/or identity. This was a particularly important theme to explore as the students learned about how one's culture, family, and community shape one's identity and how a loss of connection to one's culture greatly affects the identity development process. The students were then visited by an Indigenous elder who introduced the students to a community circle and the smudging ceremony with burning sage for cleansing and truth-telling. He also talked about his experience as an individual who is half-Indigenous and half Caucasian and his own personal search for identity and belonging. The students asked questions, made connections to their own family situations in group homes and they were able to hold Indigenous artefacts like a peace pipe and various musical instruments.

### *Touching Spirit Bear*

In order to segue into the theme of bullying and why community, place and identity are important factors in preventing bullying, as a class, the students read the novel, *Touching Spirit*

*Bear*. With this text, they further explored the community circle, circle justice and the role of elders and family in the decision-making and healing process in the Indigenous culture. In addition, the students explored the theme of bullying through the actions of the main character and his process of healing. While reading the novel, the students created their own mini-graphic novel, representing the main parts of the text through images, to further practice summarizing and to explore representation, symbolism and imagery. They also composed and recorded a song with a local song-writer on the topic of bullying, articulating what it is, why it is wrong and how one can deal with the effects of it/prevent it. In addition to this, the students worked with another local artist to take this song and transform it into a stop-motion animation movie in which the students helped write the script and make the set, props and characters.

### *Culminating Activity*

For their culminating activity, the students worked in small groups to create a digital Public Service Announcement (PSA) on the topic of bullying – detailing the main characters, their roles, why bullying is harmful and what each person in the situation can do to prevent it. The PSAs included a one-minute commercial, a digital poster, a website, a comic strip, a song and a radio interview.

### **Data Collection Tools and Analysis**

At the start of the project, the students were interviewed to gain a sense of their prior knowledge of Indigenous culture, feelings toward literacy and their digital literacy skills. Throughout the project, the researchers recorded detailed field notes, collected students' planning notes and rough work, the digital texts they produced, still images/video recordings of the students' authoring activities and students' conversations and peer-evaluations. The researchers also engaged in informal discussions with the students and teachers, of which noteworthy points, themes, ideas or feedback were recorded through text or voice recorder. We also conducted a second set of interviews asking similar questions to the pre-project interviews in order to gauge if any attitudinal or knowledge-based shifts occurred in the students regarding their literate identities, skills or social presence in their learning community.

In order to code the data, we employed Strauss and Corbin's (1990) traditional coding procedures and then used Black's (2007) cross-case comparison to examine common emergent themes across the selected case-study samples. Thematic coding (Miles, 1994) and critical discourse analysis (Fairclough, 1995) were also used when examining the data sources. As major- and sub-themes emerged, the codes were revised and expanded. During the data analysis, we were particularly interested in what Bruner (1994) identifies as 'turning points,' looking for areas where the students presented increased confidence in their literate identities, skills, demonstrated agency and/or became more actively involved in the learning community.

### **Results**

Cummins (2000) discusses the transformative possibilities of technology and its potential to assist students to make positive changes in their world. The use of technology in education should be judged by the knowledge gained and the skills attained, but most importantly, by the "social purposes to which these skills and information will be applied" (p. 536).

The study found that the use of a critical digital literacies pedagogy and a strong community of practice accelerated the development of positive literacy identities. In turn, this

allowed the struggling students to express themselves and contribute to the learning community much faster than with traditional literacies where stronger reading, writing and speaking skills would have been required. Furthermore, the students gained an awareness about modern and historical social justice issues surrounding Canadian Indigenous peoples. We report on our findings below and for clarity, they have been divided into our two research questions. The first question concerning a shift in pedagogy has been addressed from the perspective of the researcher and the teacher, for cross-comparison. The second question concerning an increase in digital literacy skills, traditional literacy skills and the creation of a classroom community of practice has been addressed from the perspective of the researcher and each of the students selected for close case study examination.

- 1) How does the use of a critical digital literacies pedagogy, which takes place at the intersection of critical literacies and digital literacies, potentially transform teaching?

### *Researcher Perspective*

The technology clearly leveled the learning ‘playing field’ and the normal pedagogical hierarchy was suspended during these digital, collaborative and interactive sessions. From our observations and informal discussions with the students, we saw they were more motivated to engage in the digital literacy activities, and that those who typically struggled with paper and pencil tasks excelled when using the digital tools, due to the inherent multimodality. The students were eager to use the iPads and laptops to create their own digital texts, and the level of engagement, empowerment and confidence rose dramatically for some students. Specifically, we saw them taking risks and experimenting with new programs, like how to import images to Prezi or how to layer text on stills in GoodNotes. As there was no one right way of doing something with the digital tools, the students had different entry points into the various assignments and their completion process.

A heightened level of creativity was also observed in the classroom, and the students all made gains in terms of their problem-solving and “trouble-shooting” skills. As a result, the students were naturally eager to share their knowledge and collaborate, which noticeably improved the sense of community in the classroom. As the teacher was no longer the “expert” in the room, the inquiry-based approach empowered the students, by promoting independence. Coming into the study, many of the students exhibited what appeared to be a type of learned-helpless or feelings of inadequacy in terms of their knowledge, literacy skills and/or ability to complete tasks. They would often check-out or claim to need a teacher or education assistant to help them complete a task. However, the inquiry-based and collaborative approach that digital tools facilitate in the classroom, gave the students room to re-define themselves as literate individuals and to feel a sense of agency and success they may not have previously experienced.

### *Teacher Perspective*

The classroom teacher found that the partnership program with UOIT “...served to highlight the ‘holes’ in students’ learning and in [her] teaching practices.” As the students have changed schools and homes many times, the normal learning trajectory has been disrupted, resulting in noticeably large knowledge and skills’ gaps. According to the teacher, these “gaps are difficult to identify through academic testing” and instead, it is “through the day-to-day learning environment that students exhibit their understanding or lack of understanding and their abilities to perform certain tasks.” For this group of students, the multimodal tools and the collaborative group-work enabled them to participate in the learning activities and to

communicate their ideas even when they lacked certain traditional literacy skills or did not know something related to the topic of study. For example, for one grade 8 student with low literacy levels, “removing the ‘pen and paper’ component from the equation and allowing alternative ways for this student to express himself, he [went] from rarely participating in class discussion to being an active participant.” The variety of communication affordances inherent in digital tools meant that the students had multiple entry points into the texts or assignments. The teacher observed that the “students [had] the opportunity to create numerous arts-infused pieces used to assess their learning.” Furthermore, the collaboration meant that the students relied on distributed knowledge, as opposed to individual knowledge, which kept them engaged, as they did not reach a knowledge wall or the resulting frustration that can come with that. As a result, the “students’ confidence increased; students who ordinarily would not contribute to class discussions were fully engaged.” The teacher elaborated on the benefits of creating this community of practice as she observed that “having the students do work in the conventional sense, i.e. pen to paper creates a learning environment that can be ambiguous, where individual students become lost.” Instead, the digital tools present numerous opportunities for her to work from “the ground up, filling in all the gaps to ensure understanding and providing a richer creative experience.” In addition, because at-risk students have difficulty with focus and perseverance with tasks that require sustained focus and effort, using iPad applications “removed a great deal of pressure from the students, allowing them to develop their abilities to interact, build trust, self-confidence, effectively communicate their thoughts and feelings and develop listening and cooperation skills.” Overall, the digital tools and the collaborative learning environment created a “safe, secure, comfortable and non-judgmental learning environment.” This is a major shift from the beginning of the year where students were “reluctant to work as part of a group.”

- 2) How does the use of a critical digital literacies pedagogy help accelerate the development of under-performing students’ literacy identities, practices and skills so they can become agents of change in society?

Overall, we found that students made gains in their understanding of Indigenous issues, in conjunction with their digital and critical literacy skills. So a two-pronged effect was achieved as a result of using digital technology as a vehicle to the acquisition of knowledge.

During the project, the students created a variety of digital and multimodal texts responding to in-class discussions on the injustices of colonialism and the residential schools system. They asked important and difficult questions about inequities and injustices and internalized the content, as evidenced in the critical and empathetic perspectives they brought to their work and comments in class. It was through the creation of digital comic strips from the perspective of Indigenous individuals, stop-motion animation videos, digital collages, and digitally-recorded songs that the students were able to play with perspective and empathize with the central characters and conflicts in all of these texts. They stretched their digital literacy skills through the use of programs like iMovie, Prezi, Glogster and Bitstrips and developed a critical and empathetic eye to the injustices Indigenous people and communities have suffered.

The following three case studies reported from the perspective of the researcher and the students themselves demonstrate the growth in literacy skills, literacy identities and observable and experienced feelings of agency:

## ***Daniel***

### *Researcher Perspective*

Daniel was identified as operating at a kindergarten level in terms of his reading and writing skills. According to the teacher, he previously exhibited anger issues in the classroom, especially when it came to traditional literacy activities as he couldn't participate or perform at the same level as his peers. With the introduction of the research study and the critical digital literacies pedagogy, he was able to participate in the classroom activities as a Legitimate Peripheral Participant (Lave & Wenger, 1991) and to start crafting a new literacy identity – one where he was competent and had valuable insights to add to the learning process. The teacher noticed marked differences in his engagement in the classroom, his willingness to participate in the activities and the quality of work produced. He was able to express himself without the help of a teacher through digital tools, like iMovie, Prezi, GoodNotes and Bitstrips, which combine images and minimal text to communicate meaning. This autonomy gave him confidence and encouraged his participation in class.

### *Student Perspective*

Daniel explained that he found it easier to express himself through visual means than writing assignments. He explained that, "I don't like to write stories and stuff, but I like when I can use pictures to tell the story. I have ideas, but I can't put them down on paper; it's hard for me. I like to be creative and make my ideas so that I can see things." This motivation to participate through visual literacy assignments was observed with Daniel throughout the project. His sustained focus when completing digital stories, specifically when using Bitstrips, was remarkable and the quality of work produced was exceptional. Although text was limited, the attention he paid to layout design, style, colour and balance showed a high level of understanding regarding visual communication.

## ***Jordan***

### *Researcher Perspective*

According to the teacher, before the study, Jordan often exhibited acting-out behaviour; however, from the beginning of our research, his knowledge of and passion for technology focused his energy. He was extraordinarily engaged in the multimedia activities like the digital presentations, posters and comics. Furthermore, he was producing high-quality pieces of work based on his previous experience with a variety of technology programs, and he was extremely willing to help his peers and share his knowledge.

### *Student Perspective*

Similar to Daniel, Jordan explained that "I have good ideas, but it's hard to get them out. When I can make my ideas into something different than just words on paper it's easier and I like it more." Jordan showed exceptional creativity when it came to creating digital posters and trouble-shooting/thinking creatively to solve problems and/or to exploit the affordances of the digital tools we used. As Jordan came into the project with more technology skills than some of the other students, he was able to adopt the role of tech-expert in the classroom. The teacher and other students looked to him to help solve any technical issues that arose. Where he was not known for his traditional reading and writing skills, he quickly developed an identity of being tech-literate. This noticeably increased his confidence and desire to share his knowledge and participate in class.

## ***Dana***

### *Researcher Perspective*

Coming from an abusive past, Dana struggled with issues of self-control, attention, self-confidence and conflict resolution. As a result, at the beginning of the project when completing more traditional literacy practices, Dana appeared not to be engaged in the activities. However, Dana had natural artistic abilities and these were fostered through the multimodal tools we used to express meaning and understanding in class. For example, she was able to excel in areas that drew on layout design skills and the use of image and text to communicate meaning. When completing these types of tasks, she was completely engaged and it was obvious that she felt a sense of autonomy and pride in the creation process. She was very proud of the work she produced, sharing it with the teachers, researchers and her fellow peers with a positive and enthusiastic attitude. Furthermore, the affirmation she received for creating these pieces made a noticeable and positive impact on her literacy identity and confidence.

### *Student Perspective*

Dana greatly enjoyed the multimodal, digital and visual aspects of the assignments we completed throughout the project. She always appeared extremely engaged in the classroom and driven to complete the activities thoroughly. She explained: “I liked when we did the song and the Claymation. VoiceThreads was one of my favourites...” After delivering her VoiceThreads presentation to the class, without any prompting, the students immediately applauded and asked how certain techniques were achieved. Her proud body posture and the smile of her face indicated that she felt a sense of accomplishment and recognition for the creativity and the quality of work she had put into this presentation. As Dana’s strengths and interests lay in visual art and communication, she was always keen to engage in any activities that included digital posters, images or videos. She especially enjoyed programs that allowed her to exercise a great deal of control in the creative process: “I liked doing the Bitstrips...in Bitstrips you can get the background and can change colours on them. I liked the Voicethread one cause you can put videos, pictures and you can record what you want to say. It lets you be creative.” Dana became known as the artist in the classroom and her visual literacy identity noticeably increased, as she and others looked to her as the visual expert in the classroom.

## **Educational Importance & Connection to Conference Themes**

The study has found that a critical digital literacies pedagogy has the potential to shift teaching away from transmission-based practices and toward ones that are collaborative and process-based. Subsequently, the teacher moved from expert to facilitator, developing the necessary scaffolding and guiding activities, but not providing direct instruction. In this way, the classroom was transformed into one that was learner-centered and reliant on a collaborative learning approach, which has been proven to increase participation, engagement and overall learning.

Furthermore, it is also clear that the use of a critical digital literacies pedagogy accelerated the development of positive literacy identities, which allowed these struggling students to express themselves and contribute to the learning community, as the tasks did not only rely solely on traditional reading, writing and speaking skills. For those students who previously exhibited aggression and/or inappropriate behaviour when it came to engaging in traditional literacy practices – these issues were reduced, as the students had a point of entry into the tasks and assignments and could experience success in their work. As a result of this, the

students appeared to shed the adopted narrative or identity of struggling outsider and instead were able to use their new digital knowledge and skills to engage with the classroom work and achieve. It is evident that these new digital literacy practices have the potential to level the academic playing field, while also build the classroom community and the students' traditional literacy practices. This ultimately resulted in a safe and supportive space for the students to explore and construct stronger literacy identities. Finally, it was apparent that learning about social justice issues like Indigenous injustices and bullying, in tandem with learning new digital communication tools, helped sensitize the students to the plight of others. Showing the students how they can speak up, while also teaching them the tools to make a difference, has the potential to lay the ground work for action and the development of agentive literate identities.

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## From Expert Primary Schoolteachers to Novice Mentors

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**Abstract:** *This text concerns mentors' reflections about their professional development process during their participation in the construction and development of an Online Mentoring Program (OMP). Its objectives are to: identify the mentors' reflection types and patterns along their participation in the Program; define the content of their reflections; analyze whether they have been modified and in which ways. The successful construction and implementation of the community of mentors is both facilitated and hindered by organizational dimension, the participants' personal characteristics, interaction patterns, how roles (of mentors and researchers) are played out, the themes/topics discussed and their relationship to personal or professional aspects and the professional identity. The mentors demonstrated a multidisciplinary knowledge, and a multifocal vision about what they need to know in order to teach novice teachers how to teach considering diverse formative needs, factors and contexts of teaching practice.*

**Keywords:** Online Mentoring, Professional Development of Schoolteachers, Novice Mentors, Teacher Education

### Introduction

The OMP – Online Mentoring Program is a professional development program for novice primary schoolteachers. It was conducted by researchers of Federal University of São Carlos (UFSCar) – Brazil and experienced primary schoolteachers as mentors. It was an online program held in the Portal dos Professores ([www.portaldosprofessores.ufscar.br](http://www.portaldosprofessores.ufscar.br)).

The Program derived from a research project that had the objective of satisfying formative needs of novice teachers with a collaboration of the experienced teachers, having as research question:

What are the mentors' reflections about their professional development process considering their participation in the construction and development of the Online Mentoring Program?

The objectives were established based on this question:

- To identify the types and patterns of mentors' reflection.
- To define reflections' contents
- To analyze whether these contents had been modified throughout the OMP development and in which ways

## **The Online Mentoring Program**

In the OMP, we conceive mentorship (or induction period) as a set of formative activities following pre-service education that aim at assisting teachers throughout their first professional years (until five years), although mentoring programs may apply to all phases of the teaching career.

The OMP was developed in 5 years, had the collaboration of 10 experienced primary schoolteachers (the novice mentors), and catered to 41 beginning primary school teachers who were interested in investing in their own professional development. The OMP's characteristics are: is directed to K-4 teachers with up to 5 years of experience, and is run by three researchers and ten mentors; it provided help, by means of virtual and asynchronous assistance (email communication), to the beginning schoolteachers during 6 to 30 months; each mentors was in charge of three to four novice teachers (a mentor and a novice compose a dyad), but there was no communication among the novice teachers.

The novice mentors experienced different phases in their professional development process when learning to mentor (beginning, maturation and mastery). In order to be a mentor, the expert teachers were supposed to construct a specific knowledge base and a new professional identity and be capable of helping novices to learn the school philosophy and cultural values as well as of demonstrating a repertoire of professional standards expected by the school community and public policies. Their main tasks were counsel and provide general information, suggest teaching materials, supervise practices, propose solutions to problems, and share experiences.

The OMP design - objectives, themes, methodology, and duration - was developed by the researchers that were authors of the text with the collaboration of future mentors chosen by them due to their involvement with teaching and the formation of other teachers.

The OMP may be characterized as flexible and comprising activities adapted to the novices' individual needs and workplace contexts. Each novice teacher enrolled in the program is assisted by a mentor, who guides her throughout the program, which consists of two modules. The first module had a 120-hour duration approximately in one year followed by a second stage with a 60-hour module that lasted for six months.

The OMP's construction and development adopted the constructive-collaborative perspective of qualitative research and intervention. The adopted model implied the reflection of novice teacher and mentors on their own practices, bearing in mind the characteristics of adult learning and professional contexts as recounted by the novice teachers. The constructive-collaborative perspective presents the following characteristics (Cole & Knowles, 1993):

- allows the apprehension, interpretation and description of the knowledge constructed by mentors as well their mentees;
- demands dialog, communication, exchange and reciprocal professional development on the part of teachers and researchers;
- entail collaboration, mutual understanding, consensus-building, democratic decision-making and common actions (Clark et al., 1996, 1998);
- the collaborative actions between mentors and new teachers involve interpreting data and understanding the context under consideration (Wasser & Bresler, 1996) and

consenting to the coexistence of multiple ideas when signifying and building solutions to identified problems.

The option for collaborative work among researchers and mentors implies adopting procedures that favor partnership and mutual learning processes (Cole & Knowles, 1993). It entails the systematic investigation of the collaborative work to change the social relations existing in the context/community under consideration (Aldenam, 1989).

The model considers the mentors to have voice and influence in decisions by developing a culture of encouragement and support for their learning. It was considered that when studying teachers' professional development processes it is fundamental that researchers observe, participate and discuss teaching, learning and other educational aspects with the main actors, the teachers themselves. To do this it requires access to rich representations of practice, opportunities to investigate the complexity of teaching.

### **Justification**

Mentoring programs are increasingly common in state policy in USA and Europe and it is currently an important strategy to address new teachers' isolation, frustration, and failure. It is considered to be a promising avenue for the professional development of inexperienced professionals and of those who work as mentors themselves (Sundli, 2007).

There are many models of mentoring. Countries such as England, France, Finland, Israel, Singapore and Switzerland adopt national policies regarding mentoring (OECD, 2005).

Brazil does not have public policies on the mentoring of novice teachers and it also does not cater to the specific formation needs of the teachers in other phases of their careers. Due to this context, OMP was the first Brazilian experience that focused on educating beginners and mentors. Currently, at some public universities such as UFSCar there are projects that aims to facilitate the initial teacher formative process with the help of working teachers that were trained for this purpose.

We advocate the importance of grounding professional education in practice, not necessarily by locating professional education in schools but by making the work of practitioners at the center of professional study. Therefore, the mentoring program was organized to be distance delivered with internet support.

Mentoring novice teachers is a challenging activity because of a number of factors associated with the interactive processes between mentors and mentees: conflicting ideas and attitudes; lack of confidence; partial information; incompatible schedules, and communication difficulties. Other sources of tensions and dilemmas are related to the professional culture of the novices' schools.

We assume that the representations of practice include all the different ways in which the work of practitioners and what they think is made visible, as the stories told by practitioners about practice, to written narratives and cases of practice, cooperate with their peers in follow-up meetings on mentoring practices, taking shared responsibilities in the formation of beginners, among other things.

## **Theoretical Framework**

At OMP, we adopted some theoretical reference: teacher learning and professional development (Shulman, 1986, 1987; Ball & Cohen, 1999; Borko, 2004); the first years of teaching characteristics (Grossman, Thompson & Valencia 2001; Zanten & Grospiron 2001; Fantilli & McDougall, 2009); mentoring processes (Weiss & Weiss, 1999; Wang & Odell 2002; Norman & Feiman-Nemser, 2005); reflection on pedagogical action (Hatton & Smith, 1995; Rodgers, 2002; El-Dib, 2007).

In this paper specifically we will present references on the concept of collaboration, essential to the understanding of the formation, performance and reflection of the beginner mentors.

According to Slater (2010), “collaboration, whereas it is not a new idea, has provided the mechanisms that purport to change the way school problems are approached” (p.1). It is important to consider the need of culture evolution and change among the institutions and people in them as also the need for consistency and the avoidance of dissonance be controlled. This is a very complex initiative because it involves different cultural worlds as also interests on the same project (Slater, 2010). There is a proper way to "see" and "act" for the participants related to their culture of belonging and which remains in the interactions, negotiations and implementation of the collaborative process.

The collaborative mode of interaction between teachers/mentors and researchers emphasizes the importance of establishing multiple purposes and interpretations. A constructive sense in this kind of interaction is rendered by the presupposition that teaching is an ever-changing process. In this perspective, situations seen as dilemmatic or problematic ask for collective decision-making and problem-solving processes. Teachers are involved in the investigation of process lived by themselves (Cole & Knowles, 1993). It goes, therefore, beyond the idea, common in the field of educational research, that teachers are subjects, not producers of educational knowledge (Zeichner & Noffke, 2002).

In this research approach, it is fundamental to have the collaboration among participants in both formative and investigative tasks. This collaboration may be characterized as a dialog that requires the participants' engagement in conversation, exchange and reciprocal professional development. True collaboration allows mutual understanding and consensus, democratic decision-making and common action (Clark et al., 1996; 1998). It entails the predisposition for inquiry aimed at generating new knowledge and addressing everyday school problems.

Exposing needs, reflecting and interpreting reality according to the context where they belong – characteristics of the formative/investigation processes carried out in this work – are also collaborative actions. In these actions, multiple points of view are considered to be in dynamic tension as a group of people seeks to make sense of themes, problems and meanings of a work field (Wasser & Bresler, 1996).

These actions can promote the construction of a professional learning community, understood as a community of professionals, which, through interactions, modify or learn new actions and transform their professional identities. The literature indicates that these communities

play an important role in teachers' responsiveness to public educational policies, commitment to the construction of more adequate teaching conditions for their students, and consequently in the changes experienced when teaching (Mizukami et al., 2010).

When the focus is on teachers' individual changes, the proposals usually emphasize knowledge of subject matter, understanding the thinking of students, instructional practices and conceptions that sustain them. When the focus is on collective contexts formed by people who are engaged in a process of collective learning, they share regularly the same goal focusing on what they do or are learning to do. These professional communities are important spaces for teachers to invest in themselves as a person and as a professional. Teachers' professional development processes should complementarily consider individuals formative needs and the professional group in the school institution or other arrangement demands that adds teachers around a common goal (Borko, Elliot & Uchiyama, 2002), such as observed with mentors and researchers in our study.

In professional communities, teachers can rebuild their individual professional identity, build a group identity, define norms of interaction, and understand and accept individual differences over time. They develop, in a negotiated manner, understanding that teacher's learning and student's learning are processes interrelated and that there should be a collective responsibility for individual growth of different participants. As the nature of teaching is articulated within the school context, the interactions between school staff, dialogue and trust relationships are important in achieving cohesion of objectives and practices among community members.

A group can only be characterized as a community when its members are socially interdependent, participate collectively in discussion and decision-making processes, and share practices that both define and nourish the community. The members of learning or practice communities should create, expand, and share knowledge about their practices as well as develop their individual competencies (Galluci, 2003).

We consider that if teachers have the opportunity to work in groups (with shared goals), exchange ideas, negotiate responsibilities (Galluci, 2003), expose their knowledge bases as well as come into contact with connections between theory and practices (Weiss & Weiss, 1999) they can contribute to each other's professional growth and mutual enrichment.

### **Procedure**

As research data sources we had: e-mails exchanged between the mentors and their novice teachers, between the mentors themselves and between the mentors and the researchers; reflective journals of mentors and novices; the transcriptions of weekly meetings between the mentors and researchers; autobiographical accounts and written narratives.

In order to promote the mentors' professional development and the investigation of its processes the researchers conducted weekly meetings with them that were held at the university. These meetings were recorded and transcribed.

With the purpose of defining topics for the meetings, the mentors would send a weekly report on the activities they had carried out with novice teachers under their responsibility along with a reflective journal.

To the mentors, these meetings were important due to the analysis and collaboration of the formative process of the beginner teachers. For the researchers, the weekly meetings allowed the analysis of reflective journals and reports and electronic messages exchanged by them and their novice teachers. Besides, it allowed the analysis of the interactions between mentors and novice teachers, included activities such as oral presentations about the mentoring carried out by the former, discussions about themes of collective or individual interest, analysis of theoretical articles, and seminars.

These activities were devised to promote new professional learning as well as assist the researchers in investigating its processes.

The data were comprised of a set of narratives and it was necessary to:

- read them every week to establish their themes and focus;
- systematize them along a timeline to facilitate the definition of what each novice was “talking” about with her mentor and what was discussed at the weekly meetings;
- compile the information about the novice teachers and their interactions with their mentors into a weekly synthesis, which provided issues to be discussed at the weekly meeting between the mentors and researchers;
- compile into a weekly synthesis the information about the researches and their interactions with the mentors;
- establish the mentors professional learning trajectories, or timelines, with the intent to map the opportunities promoted by the OMP;
- analyze different kinds of narratives seeking to identify: the mentor’s conceptions, their knowledge base, knowledge demands and learning associated with the highlighted practices; characterize the difficulties faced and the ways to overcome them.

We highlight that this process enabled the delineation of the mentors’ professional development trajectory and the process of construction of their professional identity as trainers.

To illustrate, the elements that were important in the process of formation of mentors are illustrated in the figure below.



**Figure 1 – The OMP and related conceptual areas**

### Some Results

The mentors' narratives showed that the expert teachers' lived different phases (beginning, maturation and mastery) in their professional development processes to learn to be a mentor and each one with specific concerns, fears, dilemmas and feelings. The data were analyzed according the following dimensions: organizational, contents of reflection, participants' personal characteristics, professional profile, interactions patterns, and roles of the researchers and of the mentors.

The *group norms* were developed spontaneously, over the course of time. Slowly the mentors and researchers built a community identity and norms of interaction. In this process, we sought solutions to conflicts and to overcome it. Each member took the responsibility for the own professional development process, the other mentors' and those of the novice teachers. The narration of mentor Cassia illustrates this aspect.

The personal development came through the coexistence with the other mentors and with researchers involved. With this coexistence, I could develop my ability to understand and express ideas, thoughts, and concepts. The meetings in democratic environment, harmonious, relaxed, always favored the debate and discussions of all topics. Always I had the freedom to express my opinions and make my interventions. I also have learned a lot by listening to other mentors. (Mentor Cassia)

An example of *theoretical disagreement and respect for others' ideas* was marked when the mentors and researchers discussed concepts and practices of literacy, one of the most requested topics by the novices. The group of mentors and researches had not reached an agreement on which teaching processes were "better". It was decided, in this case, that each mentor would lead the process with their beginners according to their own beliefs, experience and knowledge. An example was the manifestation of Mentor Cassia in the group meeting:

I am having trouble working with beginning teacher A and I would like to socialize with the group. Asking for help once, we have to recognize our limitations. I fell into my own trap. I have asked for help with planning for her and now I do not know how to approach the situation because there are many problems. (...) I want to ask for help from mentors Dulce and Maria Inês who are specialists.

The *norms included the respect for the knowledge and practice of peers* whether or not they had the same teaching philosophy, and they developed sharing strategies and helped when a mentor requested. Gradually, researchers and mentors acknowledged the importance of a space designed for intentional sharing of knowledge, experience, acting aimed to build a vision negotiated about the novices and their contexts.

*Partnerships* between two or three mentors were born spontaneously or on behalf of interest of one of them and were favored by the relaxed atmosphere and respect existing in the group, resulting in a culture of sharing, exchange and responsibility.

In these weeks meeting we discussed again the OMP format. Even after one year and a half we continue to construct our way. This is very interesting. We evaluate, reflect and seek for news steps. The program was modified (...) and then we asked ourselves: How long would it take? What would the mentees be capable to do at the end of the program? (...). We noticed from the beginning that the OMP is not a course that begins and end in a definite data. We know that each mentor-novice relationship is specific once each mentee shows personal formative needs. (...) Considering these circumstances and after several analysis and reflections, the ideas were clearer. This is very good because everybody (including myself) had doubt about the OMP shutdown criteria. (...) Everything now is clearer, more objective. I liked it very much. We need precise shutdown criteria in spite of the focus of OMP the teaching professional development it does not have definite previous contours (each novice is a different person that lives and work in specific context). (Mentor Dulce)

In the case of *professional issues*, the clarification of doubts and dilemmas, the request and offer of aid, self-analysis and reporting of activities done and discussion of the work of other researchers and mentors encouraged the approaching between the participants of the group. This variable failed to strongly affect the group in question, because the flexibility of the curriculum and the participating total time of beginners in the OMP favored the acceptance of differences. An example of this variable can be identified in the following narrative:

... Regina [mentor] had asked about which would be the best way to define the selection of a novice to a mentor. It followed an excitement moment when all the mentors want to have access to the novices' files with the objective to choose one that is suitable to their profile. After a little confusion, it was decided that the best way to match a novice with a mentor would be adopting a raffle. In reality it seems that we didn't want (Is it because of fear or insecurity?) to assume an eventual didactics or pedagogical difficulties that could happen. It could be a problem, which we feel unable to help. I believe that it won't happen because the interventions will be discussed in the weekly meetings. In these occasions everyone can suggest, can exchange ideas and experiences. We would discuss the best strategies considering the profile of the novice classroom. (Mentor Maria Inês)

Other excerpts from narratives of mentors exemplify the *contents of their reflective processes* as follows:

... I was very apprehensive expecting the contact with the novice teachers; but I believe that everything that is "new" in our lives causes us some discomfort, great anxiety and a lot of insecurity. (...) I remember the early meetings, where the coordinators would distribute the beginner teachers to the mentors, my heart was racing and I hoped also that no mentee was given for me. The meeting started with the coordinators saying the names of mentors and their mentees and there was my name ... I was very nervous ... I imagined it would not get because I was still unsure how to communicate via online, despite having had the training I needed. (Mentor Monica, 1<sup>st</sup> year) [Fears and uncertainties related to the first experiences in mentoring]

My participation in this period on the OMP contributed to my professional development because I learned a lot. The debates and discussions were intense, deep, all about the difficulties of beginning teachers. As a teacher, I understood many unconscious actions on my pedagogical practices and as a principal I could better understand my school beginner teachers, their distress, their longings.... (Mentor Cassia, 3<sup>rd</sup> year) [Contributions of the OMP to the professional development]

Many were the lessons learned from the learning period as a mentor (...) until the moment in which I have to analyze and conduct elaborate reflections in order to systematize the process experienced by me as a mentor. In doing so, I reiterate that the most difficult time is the shutdown of the novice, although some criteria as determinants for this to occur. The construction of a bonding becomes an impediment although it is essential for the interaction between mentor-mentee be consolidated with more confidence and credibility. I think that the longer the duration of contact between mentor and the novice becomes more painful to formalize this shutdown. Likewise, the establishment of a bond can create a cognitive excessive dependence on the mentee to his mentor at the point of being difficult to assess whether the novice teacher actually already manifest autonomy to pursue alone. To assess these situations with objectivity and transparency I need to be able to maintain a distance and not get involved in personal situations. (Mentor Dulce, 3<sup>rd</sup> year) [Difficulties and dilemmas related to the ending of the mentoring process]

I also think that the interaction of the group to share their expertise and knowledge was a prominent factor for learning new procedures - working in partnership allows those who teach also learn to have to revise their concepts and systematize their knowledge - and the development of attitudes - respect, solidarity and dialogue on the interaction with different people. [interaction with colleagues] I really think we have come quite far. We find that the act of recording should not be considered a mechanical act, mandatory and purely administrative but a procedure essential for us to rethink and evaluate the whole process of teaching and learning that occurs when we act the role of mentor. Indeed, narratives and diaries are inserted into a new learning environment when they allow you to put in evidence their analyzes and reflections for discussion and consequent change in their practice. From a problem situation, there is a need for more elaborate discussion and analysis that leads to a reflection and this, in turn, requires a decision, an action plan that

will help forwarding the solution of this problem more discernment and reflection. (Mentor Maria Inês, 3<sup>rd</sup> year) [Importance of the written narratives]

It is the practice of this exercise - relate these issues from reflections - which will contribute to make me a more experienced professional. But we also have to consider that all knowledge acquired should not be isolated, the exchange is important that this knowledge can be shared in the collective. The meetings conducted every Thursday just let it happen. (Mentor Maria Teresa, 3<sup>rd</sup> year) [Importance of the knowledge constructed by the group of mentors]

The previous examples reveal that the themes/topics discussed and their relationship to personal or professional aspects - as regards professional themes, actions – such as expressing doubts and dilemmas, asking for and offering assistance, reporting and analyzing one's own activities, and discussing those carried out by the researchers and other mentors – appear to bring participants closer together.

The mentors' reflexive process, exemplified by the previous narrations, was altered throughout the mentorship and occurred in different levels and in an idiosyncratic way. Some mentors revealed broader reflections based on theory and on their practices of teaching and mentorship while others established immediate reflections, focused on solving the problems presented by their mentees.

In both cases, the following dimensions permeated (either facilitating or hindering) the successful construction and implementation of reflexive processes and the construction of the community of mentors and researchers.

In this process, the following variables were observed and classified:

- *The organizational* - related to the precise definition of participants' roles (being a mentor and being a researcher) and of interlocution loci and occasions. Absent or imprecise definition of roles (due to their fluid nature) may hamper the establishment of fruitful interactions, especially if group environment and climate are not based on mutual respect.
- *The participants' personal characteristics* - we noticed that authoritarian personalities, inflexible and defensive, and persons that have difficulty in publicly expressing their points of view may obstruct interactions among group members (as well as mentor-novice teacher interactions).
- *The professional identity (profile)* - it was evidenced that some mentors – for several reasons – did not build or were not capable of building a teacher educator identity.
- *The interaction patterns* - established by participants. Isolation patterns cause participants to distance themselves from the group and hinder much needed interactions.
- *The way roles (of mentors and researchers) are played out* - i.e., how practices take place. In this case, actions associated with listening, analyzing, suggesting, questioning, contradicting, working a team, ignoring or changing roles, replacing, submitting, and leading seem to be very important.

## **Final Remarks**

The successful construction and implementation of the community of mentors is both facilitated and hindered by organizational dimension, the participants' personal characteristics, interaction patterns, how roles (of mentors and researchers) are played out, the themes/topics discussed and their relationship to personal or professional aspects and the professional identity.

Along the OMP the mentors demonstrated a multidisciplinary knowledge, and a multifocal vision about what they need to know in order to teach novice teachers how to teach considering diverse formative needs, factors and contexts of teaching practice.

The 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 individual has all the knowledge and skills needed for individual teaching (Clark et al, 1996, 1998; Cole & Knowles, 1993; Borko, 2004; Galucci, 2003; Slater, 2010; Sandli, 2007).

It has been noticed that collective examination of ideas enables the distribution of knowledge so coordinated actions upon someone's existing professional knowledge can promote the construction of new knowledge for others.

This process is most likely to occur with explicit knowledge because it has been decoded by the group of mentors or because it can be effortlessly put into words. It seems clear that a collaborative culture – that accepts and invests in multiplicity 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 under consideration – is of extreme importance.

The meetings between the researchers and mentors could be considered as a powerful learning source. This is not to mean that the mentors' professional learning should be limited to these instances. In the case in question, professional learning equally occurs in the virtual contexts provided by the Mentorship Program, the electronic correspondence with novice teachers, the study of pertinent literature and the analysis of teaching cases as well in their other professional contexts (e.g. schools).

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 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. Moreover, strong and open teacher

communities may be fostered by educational programs if the aforementioned dimensions are taken into account.

Related to the construction of a professional identity (profile), the fifth cultural variable, some mentors rebuilt their identities as teachers, connecting it to the teacher educator identity, expanding their cultural identity.

We do not know if it is possible to learn to be a mentor before being one. Therefore, the development process takes place in service. However, some personal characteristics are necessary for a teacher become a good mentor: to be worry about other people and to wish that other has success; write off from your resume envy, competitive spirit, pride and everything that can create barriers in a good relationship; accept people as they are and try to understand them in their thoughts and attitudes divergent of yours; always study and share the findings ... (Speech synthesis of mentors in one of the final meetings of the project).

From these excerpts we conclude that to change the practices of teachers and their mentors is not enough domain knowledge or to master new theories or teaching strategies. It is essential to change the concepts, theories, supporting practices, and processes of construction of practical knowledge.

To be an experienced teacher is not predictive to become a mentor. The absence or inaccuracy in defining the role of mentor and misunderstanding its complex nature may hinder the establishment of productive interactive conversations with the mentees and other mentors, especially if the environment and mood are not characterized by mutual respect. Hence, there is the importance of the organizational and professional identity dimensions.

The interaction patterns were essential aspects for the consolidation of a professional learning community of mentors and researchers. The way the dialogs are conducted and maintained can inhibit and silence their member voices or can empower them. It has been noticed that collective examination of ideas, conceptions and practices 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 and a collective knowledge base.

This process most likely occurs with respect to explicit knowledge because it has been decoded by the mentors and researchers 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 group in consideration.

The diversity of ideas, conceptions and practices can lead to tensions that impact collaboration. Appreciating individual and professional diversity can facilitate the community communication and the compromises needed to negotiate mutual decisions. Being attentive to the human and professional needs of all community members showed to be another element to be considered in the mentors and researchers community grow process.

Researchers wishing to promote the building of teachers' learning communities should closely monitor this process of identity construction roles and intervene whenever necessary so that there is minimal disruption in the process.

These cases highlight the importance of respecting individual cultures, contextual variables and intervening variables in this kind of initiative. Taking into account the collective cultures is vitally important once provided a pathway to work with open plans despite goals being not well defined.

We conclude this text with a narrative of mentor Maria Ines which happened during the development of OMP and that clearly illustrates the process of teaching a beginner teacher how to teach.

Being a mentor was a very rich learning process. Each beginning teacher with his uniqueness was crucial for the role of each mentor was being built throughout the process. (Mentor Maria Inês)

This study points to the complexity of mentoring activities and, consequently, of educating professionals to perform this function.

The results obtained in this study enabled a more detailed conception of what constitutes the knowledge of a mentor or teacher educator in Internet-mediated mentoring processes.

The data are relevant in view of the paucity of studies on teacher educators in Brazil.

Moreover, the proposed systematization may serve as foundation for the analysis of formative processes of mentors and other educators as well as for their design.

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## Hegemonic Masculinity as a Pedagogical Challenge in the School Curriculum: The Zimbabwean Example

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**Abstract:** *This study explored how patriarchal ideology in Zimbabwe disguises as common sense in the school curriculum leading pupils towards a gender polarised consciousness. Focus group and individual interviews and classroom observations were used for data collection. The findings revealed the ways in which the patriarchal hegemony that is promoted through the curriculum reflected taken for granted masculine and feminine roles and existential attitudes, beliefs and values within society. Through their interactions with teachers, girls were oriented towards developing the type of consciousness, personal demeanour, modes of self-presentation, self-image and the gender identifications which predisposed them to specific social roles and competencies. The conclusion is that the patriarchal nature of the Zimbabwean school curriculum advantages boys through institutionalised and ingrained gender role beliefs and ritualised behaviours valued by the society.*

**Key words:** Patriarchy, gender, roles, Zimbabwe

### Introduction

According to Carr (2009) society, school and the curriculum are mutually constitutive. They co-define what is taught and regulate teaching and learning. Walker (2010) too, views, for example, the school as a social institution that functions through an ensemble of mechanisms to promote the gender relations typical of the society in which such an ensemble exists. It ((ensemble) is often reflected in the architecture, organisational structure, chain of command or hierarchical set up, the nature of the curriculum and pedagogy, the treatment of pupils as boys and girls in the classrooms and the individualised work cards and wall charts displayed in the classrooms. Apter and Garnsey (2004) argue that among these factors are gender role stereotypes, sexist ideologies, prejudices and biased gender role values by educators and learners that contribute to the development of masculinity and a patriarchal ideology disguised as common sense. Thus, by focusing on these aspects one should be able to reveal what Gramsci (1971) argues is the common sense or natural order of things within schools and classrooms depending on the extent to which they are experienced by the pupils (see also Boggs). Therefore, given Gramsci's (1971) distinction between the traditional intelligentsia, who see themselves as a class apart from society, and the thinking groups which every class produces from its own ranks organically, even though teachers think of themselves as independent of ruling groups, this can be construed as an illusion because they may uphold conservative hegemonic masculinities, roles and ideologies aligned to and assisting the ruling group in society. In their role as inorganic intellectuals they often subconsciously support the dominant gender ideology in society. It is in this sense that teachers, wittingly or unwittingly contribute to what Heywood (2004) describes as the social construction of masculinity and femininity between boys and girls in schools as social structures.

It is in this sense that schooling may play an important part in the social system by socialising girls and boys into what society considers as the gender appropriate roles. For example, Mutekwe & Modiba, (2012a) have argued that schools in Zimbabwe exert a significant influence on the patriarchy promoted through encouragement of boys and girls to pursue various curricular activities including choices of subjects to study. This influence is conflated with Zimbabwean culture. As a result, the nexus or intersection of the school, culture and patriarchy is so strong that it is taken as common sense. Gordon (1995) and Meena (2004) have argued that such patriarchy serves to sustain the dominant social position of men while subordinating women.

In this study patriarchy is thus viewed as an ideology that sustains the dominant social position of men and a subordinate one for women. The quest to examine how it is practised in schools and classrooms as key sites for the development of feminine and masculine beliefs and dispositions, thus necessitated paying close attention to everyday classroom practices, such as teacher talk, peer group culture, curricular material and the general schools' message systems to identify in both the formal and hidden curricula, the gender biases, attitudes, stereotypes, prejudices and the gender discourses embodied in the curriculum as well as the role of schools as social contexts in the process of gender identity formation through explicit and other subtler social phenomena typical of school practices that, amongst others, Francis and Skelton (2001) and Connell (2002) view as important influences in this regard.

## **Methodology**

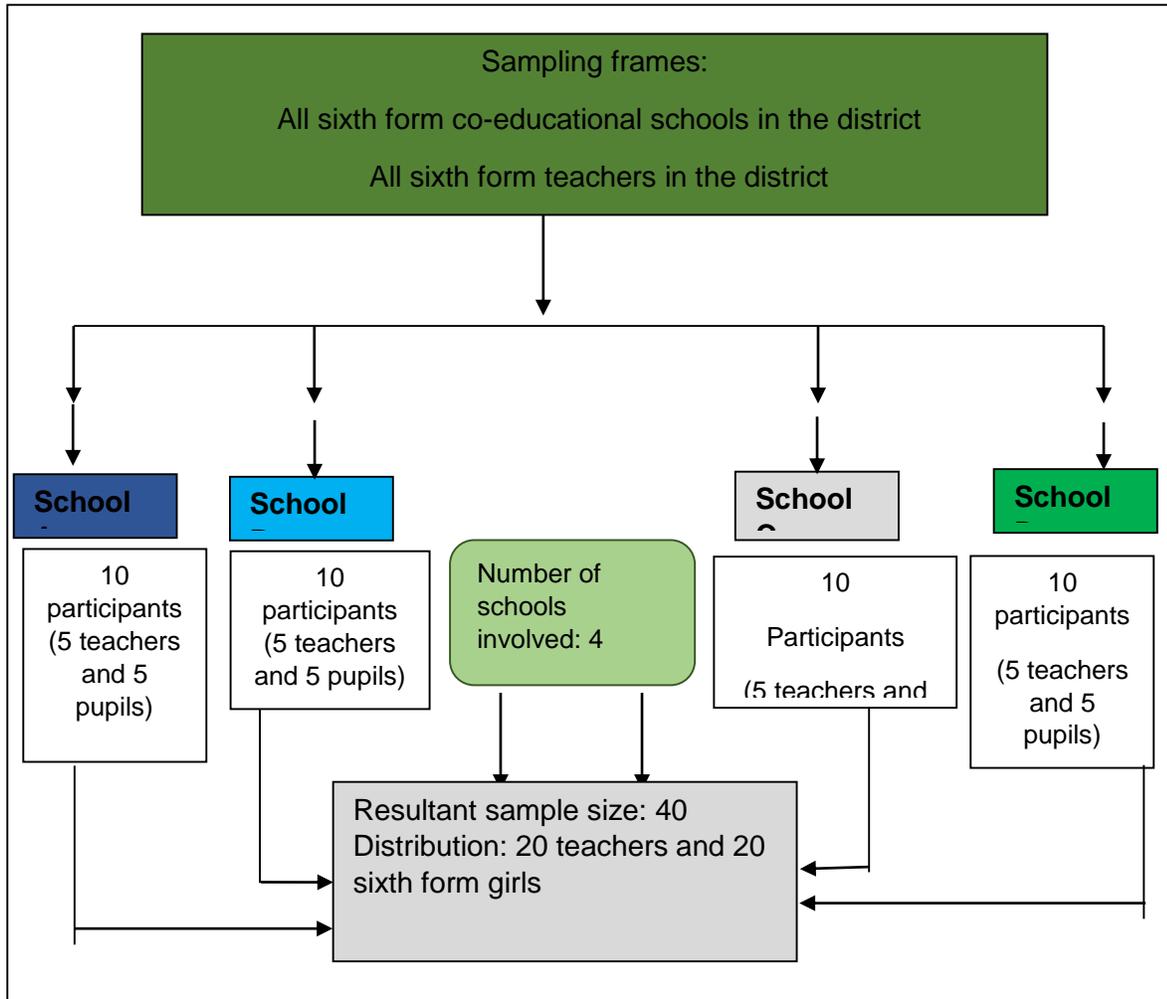
We adopted a qualitative interpretive phenomenological approach (herein abbreviated as IPA) (Heidegger, 2002; Merleau-Ponty, 1974; Smith & Osborn, 2008) to study interactions between the teachers and the girls they taught so as to gain an understanding of the gender role identities and subjective realities (Hesse-Biber, 2010; Howe, 2003) that were enacted during lessons and generally, in the schools. These were reflected as lived experiences in the language used and the beliefs, attitudes and values that were expressed. Walum (2008), for example, considers language usage (discourses) as the chief vehicle that makes social interaction possible by providing an ideal illustration of the cultural transmission process. For him, language forms or discourses contain many explicit messages regarding cultural definitions.

## **Population and sampling**

A purposive and systematic sample of 40 participants was used, comprising 20 teachers and 20 high school girls drawn from 4 schools in a district well placed to provide insights from diverse socio-economic backgrounds. Since the district is in one of the industrialised provinces of Zimbabwe, it provided a cross-section of social classes. Out of a total population of 80 sixth-form teachers in the district, 36 were female, 44 male. This translated into an average gender ratio of 9 to 11, implying that for every nine female teachers in each school there were 11 male teachers. Therefore, to obtain a gender balanced and manageable sample the gender cohort was assigned a code, 1 to 36 and 1 to 44 (cf. Figure 1). The next stage involved systematically selecting from the two sampling cohorts in the ratio of 9 to 11. As a result, a representative and proportionally gender-balanced sample of 20 teachers (9 females to 11 males) was identified for the study. A similar sampling procedure was adopted in identifying the sixth-form girls. It involved first rearranging alphabetically the names of all the 160 girls in the four schools into a sampling frame and then systematically counting in multiples of 8 to obtain a sample of 20. The resultant sample size for both the teachers and girls was therefore 40 distributed as 20 for each

group. This made the sampling techniques purposive and systematic (cf. Mutekwe & Modiba, 2013; Nieuwenhuis, 2010; Odimegwu, 2004). Figure 1 below graphically illustrates the overall sampling process adopted for the study.

**Figure 1: Graphic illustration of the overall sampling processes adopted**



### Ethical Considerations

We sought and obtained permission to conduct this study from the district education directorate responsible for the schools in which the study was conducted. First, we sought ethical clearance from the district education officials representing the Ministry of Education, Sport and Culture in Zimbabwe. We also sought and obtained the girls and teachers' informed consent before taking part in the study. To do this, the would-be participants (teachers and girls) were formally informed about the purpose of the study prior to conducting the focus group and individual interviews with them. They were also informed of their right to voluntary participation, privacy, informed consent, confidentiality and that they were free to withdraw from the research at any time without any penalty. None withdrew. Also prior to the interview sessions, participants were fully assured that the data gathered would be treated with strict confidentiality.

## **Data Collection**

The multiple data collection strategies were crucial in encouraging flexibility and in triangulating the data. They facilitated the direct experience of the interactions between the teachers and the girls as phenomena unfolding (Hesse-Biber, 2010) in the classrooms and schools as research setting. IPA (Biggerstaff & Thompson, 2008), allowed us to directly reach, hear, see, feel and interpret the experiences of the participants, thereby contributing though subjectively, to an understanding of their social construction of reality, which is a central focus of IPA studies (Smith & Osborn, 2008). First, classroom observations were conducted to capture the classroom discourses that were used during the lessons. By observing these (discourses) at the levels of action, representation and identification (Gee, 2000), we managed to capture the basic elements of the portrayal of gender and the patriarchal ideologies as embodied in the school curriculum. We followed up by conducting this by focus group interviews with 20 girls divided into 10 participants per group and individual interviews with the teachers to obtain their views on both the explicit and hidden forms of curricula as they experienced them during lessons and how they were manifested in the schools in general. With the focus group interviews we could moderate and direct the discussions towards the desired areas of the research's focus (Nieuwenhuis, 2010). The 20 girls were asked to divide themselves into 4 focus groups of 5 members and each of the groups was interviewed twice for an hour in a month to capture the general conceptions and perceptions of how masculinity manifests itself in the school curriculum. The interviews were initiated through what Odimegwu (2004) describes as the *funnel technique*, a procedure whereby semi-structured questions are used to first ease the participants into the discussion before delving into full throttle deliberations. To ensure that all the interviews were conducted without disrupting the school tone or lesson times, we identified days when both the teachers and pupils had no lessons or classes running. Each focus group discussion was scheduled on a different day. As for the teachers' individual interviews, these were conducted at different days as determined by their work schedules.

## **Data Management and Analysis**

Guided by Reid, Flowers and Larkin (2005), we looked for similarities and differences amongst the girls and teachers' views in order to produce patterns of meanings that underlay their shared experiences of school curricula. The analysis proceeded on a case-by-case basis as described by Smith and Osborn (2008). For example, every interview transcript was read several times to develop a general understanding then more closely to separate each text into meaning units. For each unit, a descriptive summary of the experiences the participants recounted was captured. This was followed by interpretative coding to identify salient themes before moving on to the next case. The themes were then synthesised to produce super-ordinate ones (themes). Reflexivity (Shaw, 2005) proved useful to make sense of experiences and ensure a detailed analysis that was flexible. It involved a six-fold thinking process of reduction, expansion, revision, creativity and innovation with the data (Smith, Flowers & Larkin, 2009). Each of these steps offered a different vantage point on the data as we moved through the different levels of interpretation. Also the participation of the 20 girls and teachers proved ideal (Mutekwe & Modiba 2012b) as their views could be easily categorised. The six-fold stages of data analysis as adapted from Smith et al. (2009) are indicated in table 1 below.

**Table 1: Summary of the six IPA stages adopted for data analysis**

Steps	Procedures	Key processes in the IPA analysis
1	Reading the raw data	In this initial stage we had to immerse ourselves in the raw data by reading and re-reading the interview scripts. The key idea was to slow down the temptation for quick and easy reduction and synopsis. In doing so, we had to bracket (or delay) our initial instinctive observations and reflections.
2	Initial noting of salient features in the transcripts	At this stage of data analysis we had to embark on a more detailed examination of the semantic content and language while retaining an open mind and noting areas of interest in the transcripts. This implied making a descriptive core of comments and interpretive notes (akin to phenomenological roots that are close to the participants' explicit meanings). Essentially this meant analysing data at three levels: descriptive comments; understanding phrases, key words and explanations as presented by the participants; linguistic comments: reflections on the discourse used by the participants and conceptual comments that interrogate the data to unpack the underlying meanings behind the texts at an abstract and implicit level.
3	Developing themes	The process involved re-examining the emerging themes in order to reduce the volume of data (scripts and notes), whilst maintaining the key ideas or issues. This allowed for the mapping of the interrelationships, connections and patterns between the themes. In this process initial notes were analysed and grouped into emergent themes reflecting both the description of the participants and our interpretations (double hermeneutics).
4	Searching for connections across/among emerging themes	At this stage the emerging themes were re-structured to highlight the most interesting and salient features in the participants' accounts. The groups herein called superordinate themes were all overarching or inclusive in terms of the salient and relevant features characteristic of the participants' accounts. It is at this stage that some of the themes were excluded based on their impertinence to the research questions.
5	Moving to the next case	In keeping with the idiographic commitment and phenomenological principles of IPA, we had to bracket the knowledge acquired in other analytical processes outlined above so as to look for fresh insights in the data.
6	Coming up with superordinate themes	In this final stage of IPA we looked for superordinate themes which recurred across cases. In practice, this required that we placed tables side-by-side to compare them. Similarities were grouped using highlighter pens. A table of themes was finally produced for the groups to show how the key issues nested within superordinate themes that eventually formed the basis of the discussion for this study.

Further to the above processes, we also paid specific attention to classroom and other discourses to unmask aspects of the curriculum that polarised boys' and girls' attitudes, academic interests and ambitions. Some of the evidence from the participants' views is presented in the form of verbatim statements to enhance trustworthiness (Richardson, 2000).

### **Results and Discussion**

The following themes formed the basis of the discussion of findings: The stay-at-home-mentality, views towards marriage and patriarchy, conformity to social conventions,

classroom discourse and patriarchy and teachers' suggestions for mitigating patriarchal hegemony in the school curriculum.

### **The Stay-At-Home-Mum-Mentality**

The views obtained in this study vindicate Meyer's (2008) assertion that in many African societies girls are most often parentified (made parents) to help their mothers with looking after their siblings. They also lent credence to Gottfredson's (2002) theory that by adolescence, the girls' ambitions or aspirations have already been narrowed down to those that are considered gender-appropriate. Their sense of the options available to them becomes circumscribed over time. Responding to the question of what types of jobs they wish to pursue upon completion of schooling, 13 out of the 20 girls (65%) argued in favour of careers typically linked to the stay-at-home-mum-mentality, indicating that when they marry they would prefer jobs that would allow them to stay closer to their families. They disapproved of women who pursued careers that interfered with childrearing. The girls considered it their role as wives to raise their daughters to become good future mothers and caretakers of the home. Here is an example of a response that was provided during the focus group interviews:

***Locadia:** It is also part of my duty as a wife to train my daughters and sons to be able to observe their roles as girls and boys. For daughters, it is every mother's wish to see her daughter getting married and living a decent life with her husband and children. For boys, mothers should instil a sense of responsibility in fending for the family since they will be the heads of families and bread winners. Teaching about all these roles should be my role as a woman or mother of the children.*

Although many girls in the focus groups aspired to go to university after completing their high school education, they held strong beliefs and attitudes (ideology) about their future lives as wives, mothers and child-minders. A significant number thought that their parents had good marriages. 17 out of the 20 in the sample (85%) aspired to marry one day, especially after completion of their vocational studies. A notable idea in the girls' responses during the focus group interviews was their wish not to rush into marriage before completing their high school education. They indicated that they feared that it might be very difficult to find men willing to marry them if they were to put economic ambitions (first) before marriage since many men do not usually wish to marry women who have excelled on the economic front, for fear of economic challenges in the home. This was an interesting revelation on their part and not unique to Zimbabwean girls. It happened in North America in the post-war era when women started to pursue college degrees and careers because they no longer saw their self-realization as simply related to becoming wives and mothers (see for example, Merna 2004; Smith, 1990; Spivak 1998). In Canada, the first wave of feminism occurred in the late 19th and early 20th centuries to increase the women's role in public life, including women's suffrage, increased property rights and access to education and recognition as persons under the law (Merna, 2004). This early iteration of Canadian feminism was largely based in maternal feminism, the idea that women are natural caregivers and mothers of the nation who should participate in public life because of their perceived propensity for decisions that will result in good care of society (Merna, 2004). They were seen as a civilizing force on society -a significant part of women's engagement in missionary work and in the Woman's Christian Temperance Union (WCTU).

## **Views towards marriage and patriarchy**

The patriarchal nature of most families in Zimbabwean society was reflected in the girls' desire to have their would-be husbands assuming the roles of family breadwinner and head of family, and to be responsible for the financial support of their wives and children. The girls believed that their role as women was to be the caretakers, responsible for looking after their husbands, children and the home. The following excerpt reflected their views:

***Melody:** More often than not, when you have done well for yourself in terms of education and career, men feel challenged economically, especially if you earn more than them. This explains why many men prefer to marry women less educated and economically empowered than them. They do this so that they remain the breadwinners and controllers of the family's economic muscle.*

***Chipo:** As a woman, I must make sure that the job I do allows me to be able to look after my husband and children. A decent woman should be able to wash, clean and look after her children and husband, otherwise the husband will send you packing and you will become a disgrace to your family.*

***Loice:** Children certainly need a mother to teach them many things before they go to school. While my husband would be the head of the family as a whole, I would wish to be his assistant who would ensure that children are assisted to clean their clothes, cook for them and do their homework.*

When asked whether they wished to continue learning to improve themselves in their later life, only 8 of the 20 girls in the sample (40%) indicated willingness for lifelong learning. The 12 girls who answered in the negative (60%) argued that owing to the patriarchal nature of their society that does not seem to appreciate continuous learning by women whom they expect to prioritise bearing and raising children, they would not bother themselves provided they have bread winner husbands. The excerpts below point to the influence of the limiting social role expectations:

***Mandy:** What I have noticed in my society is that if you are a woman who is ambitious and wish to continue upgrading yourself, most men discourage you because they expect you to be under them, bearing and raising children.*

***Miriam:** In some cases men want to suppress women's ambitions, partly because they feel challenged by ambitious women or they want to remain economically dominant in the families.*

The above views clarify how the society was instrumental in promoting hegemonic masculinity, which Gramsci (1971) argues is largely responsible for the disadvantages that girls and women often encounter in patriarchal societies. This seemed to inform the girls' understanding and awareness of their selfhood. Drawing on his views, this understanding could thus be explained in terms of how the prevalent patriarchal ideology engendered role consciousness through experiences in families the implications of which were transferred into schools. Similar sentiments are shared by Nhundu (2007), who contends that in Zimbabwe the gender ideology embodied in the school curriculum leaves girls generally more disadvantaged than boys. In the Bourdieuan (2008) sense, the social fields were such that boys enjoyed better access to the

benefits of education than the girls who tended to face systematic structural constraints because of the patriarchal ideology within society. The following are excerpts of the girls' responses and comments about the influence of this ideology on their teachers' attitudes and expectations towards them:

***Epephania:*** *Teachers think boys are more intelligent than us girls. As a result, in most group tasks they assign them the roles of group leaders while most of us girls are expected to work under them. Some teachers tell us that even when we get married we must accept and subordinate ourselves to our husbands because they will always be our providers and heads of families.*

***Juliet:*** *Sometimes you hear teachers passing comments like 'you boys surprise me', and 'how do you expect to look after your wife and children if you are not working hard at school?' 'Do not forget that we expect you to be able to support your families after schooling when you are working.' 'If you do not work hard and you fail, chances are that if you marry an educated working wife you will be under petticoat government'.*

These findings provide confirmation of what Baly (2009), Osgood et al., (2006) and Brown (2002) identified as the great influence adults wield over their children's ambitions in their social structures. As Velmans and Sneider (2010) also argued, such influence has to be understood as subjective and as reflecting a form of self-efficacy that reinforces what is generally in the feminine domain (Ginsberg, 1974). The girls seemed to have internalised this efficacy developed as a result of the social structural influences and conformity to social conventions as illustrated below.

### **Conformity to social conventions**

The need to conform to social conventions reinforced the girls' views on traditional gender roles. Conformity was promoted by the taunting or teasing suffered by those who did not fit into the roles to which others in the peer group subscribed. They experienced exclusion from peer group activities and peers reacted more positively to girls who fitted traditional gender roles. For example, one of the focus groups reported the case of a 17 year-old netballer whose favourite colour was blue and, as a result, when the netball coach was buying sports uniforms the girl chose blue. Her parents had no objection, although the salesman told her girls' uniforms should be pink. When the decision was made to buy blue the girl began to endure abuse, not only from the boys but also by her girl teammates and women in the neighbourhood. Soon afterwards, all the girls protested and stopped wearing the blue netball uniform, demanding that the school procure a new uniform with colours considered in the interests of the majority of the girls. The following excerpts reflect peer pressure:

***Naume:*** *One netball girl wanted to hoodwink us into putting on a blue sports uniform, claiming that she did not like girls' colours such as pink. In fact, she managed to have a blue uniform bought for us due to her influence but when we boycotted wearing it she could not bear the pressure and ended up giving in, thereby conforming to our demand that she acted in accordance with female colours which our society is comfortable with.*

***Mavis:*** *There are some girls in this school who try to act like boys by wanting to compete with them but we tell them that they must not forget that they will one day be pregnant and not as*

*strong as boys or men so they need not waste their effort and instead accept the fact that God created males and females differently so that they can fulfil different roles.*

***Nokhuthula:*** *If we realise that a girl wants to move away from social convention and act like a boy; we have our own way of making her conform to gender role expectations. For example, we exert enormous pressure on her until she gives in as we did with the netball captain mentioned by Naume earlier on.*

The above excerpts (pseudonymously transcribed) show how the girl's attempt at deviation from social convention was sanctioned to impose compliance with what was widely held by the society. As Gramsci (1994) argued ideas expressed seemed natural or common-sensical because of taken for granted as normal within society. In addition, the classroom observations virtually in all the four schools chosen as the sites for the study, the forms of language (discourses) used by the teachers and pupils during school and classroom interactions reflected various forms of gender biases, stereotyped attitudes and prejudices. Teachers tended to allocate chores to girls and boys in ways that differentiated social roles along gender lines, with girls often getting less challenging chores associated with domesticity while boys were often asked to execute more challenging chores associated with life in the public sphere. The excerpts below reflect the teachers' perceptions of appropriate gender roles for their pupils as boys and girls:

***Mr. Vhutuza:*** *As a Building teacher, I ensure that during practicals girls do not climb onto scaffolds but rather help the boys by carrying bricks, bringing them to the building sites from ovens.*

***Mrs Gunere:*** *During extra-curricular activities in the school I make it a point that girls are engaged in light duties such as sweeping the school yard, classrooms and packing books in the library or storerooms. As for boys, we try as much as possible to instil in them the view that they will be the breadwinners and heads of families and therefore they should undertake most of the challenging menial tasks right from school to the world of work.*

The notion of assigning light duties to girls as opposed to boys is a traditional gender role ideology in many patriarchal societies (Nhundu, 2007). This view is also implicitly evident in the girls' responses as captured in the excerpt below.

***Molly:*** *Many of their comments about us appear to be centred on our role of motherhood. Even when they are supposed to be giving us equal treatment, sometimes one hears comments that relegate us to the roles of housekeepers and childbearing machines.*

Drawing from the views of, amongst others, Butler (2000), Meena (2004) and Machingura (2006), the views expressed here support a view most notably expressed in Butler's 1990 book, *Gender Trouble* where she critiques the work of Simone de Beauvoir, Michel Foucault, and Jacques Lacan. She rejects the use of the term postmodernism on the grounds that it is too vague to be meaningful and criticises the distinction drawn by previous feminisms between (biological) sex and (socially constructed) gender. Her argument is that it insufficiently addresses concerns related to essentialism. Though recognizing gender as a social construct, she argues that post-modern feminists assume it is always constructed in the same way and feels that women's

subordination has no single cause or single solution. It is because of this that it has often been criticised for offering no clear path to action.

The girls' argument that language was the main tool used by their teachers to foster domination and subordination between male and female pupils in the schools reflects a view that has been also well expressed by Frug (2002). In her view power is exercised not only through direct coercion, but also through the way in which language shapes and restricts the reality of males and females in society. However, since it (language) is always open to re-interpretation, it can also be used to resist this shaping and restriction and so serves as a potential fruitful site of political struggle (Frug, 2002). In Frug's view sex is not something natural nor completely determinate and definable. Rather, it is part of a system of meaning, produced by language. Therefore, cultural mechanisms encode the female body with meanings and explain these meanings by an appeal to the natural differences between the sexes and differences that the rules themselves help to produce. According to Frug, rejecting the idea of a natural basis to sexual difference allows us to see that it is always susceptible to new interpretations. Like other systems of meaning, sex is less like a cage, and more like a tool. It constrains but never completely determines what one can do with it. It is in this sense that Machingura (2006) and Mutekwe (2008) are concerned about the gender biased and stereotypical views of teachers that are responsible for the fate of girls' academic underachievement and limited ambitions when compared with their boy counterparts. Also the evidence presented herein demonstrates that in the four schools the girls were made aware of expectations of their social role. It seemed as if teachers deliberately passed on cultural definitions to pupils as boys and girls. A significant number encouraged more boys than girls to be ambitious in their life. This view is discussed in greater detail below.

### **Classroom discourse and patriarchy**

Fourteen teachers (70%) argued that acting in *loco parentis* they regarded the role of girls as primarily domestic, consequently considering their husbands to be the heads of families and bread winners. This mind-set and what they attributed to the girls' academic achievement and ambitions, compared to those of the boys was also expressed by 18 of them (90%). They did not consider it their professional responsibility to initiate measures to help the girls overcome their limited ambitions. Only two (10%) recognised the need and felt they were doing their best to encourage and motivate them to be as equally ambitious as the boys. However, their efforts appeared to be confined to simply telling the girls that they should be equally ambitious as boys:

**Mr. Gwebu:** *We try as much as possible to tell the girls not to be intimidated by the boys in their various subjects. Last week I had a session with my class in which I told the girls to strive to compete equally with the boys in all their school activities.*

Asked to explain how he encouraged the girls to do this, another teacher responded:

**Mr. Gwebu:** *We make it clear to them that what boys can do; the girls can also do provided they have the zeal to work as hard as the boys. We tell them that because generally these girls do not work as hard as their boy counterparts.*

Similar sentiments are implicit in the following excerpts of the teachers' responses:

**Mr Benza:** *As a Mathematics teacher, I try by all means to encourage my pupils to dispel the myth that boys are better at Mathematics than girls but unfortunately I do not seem to get enough support from my colleagues.*

***Mrs Mpezeni:** Despite my efforts to instil a sense of gender equality in subject choices at the beginning of their Advanced School Certificate level, girls never cease to amaze me for the rate at which they continue to opt for subjects that have always been considered as women's.*

***Mr Mthombeni:** For me girls must be taught how to behave in ways that will remind them of their role expectations as girls or future wives and child-rearers. I do not allow any girls from my class to want to behave like boys. When we finish class, I ask them to clean the class and arrange books on the shelves. As for boys, I ensure that they help me with replacing the chairs and desks that we will have moved during our science experiments. This is the only way we can create order in our classes. Division of labour has always been along gender lines ever since the time of creation. So trying to change that is tantamount to trying to defy the law of nature.*

These teachers' views could be understood as serving consciously or not what Heywood (2003) regards as hegemonic masculinity, that is, a practice of perpetuating gender inequality in favour of men. Although they indicated that they treated boys and girls equally, and that for them the pupils' gender identities were not very important, their views still reflected a partiality in favour of the boys that tended to foster a sense of self-marginalisation or lack of commitment among the girls. The views tended to propagate the inadequacy of the girls. Their perceived restricted commitment was linked directly to the role expectations of motherhood and what they perceived as girls' aspirations or ambitions. Also apparent in the individual views were patriarchal values, ideas and attitudes that tended to blur the distinction between sex and gender. Teachers assumed that all socio-economic distinctions between men and women were rooted in social role expectations. In an endeavour to establish the participants' views on ways to mitigate the effects of these views we enquired from the teachers and the girls what they regarded as best practices. In their responses, many teachers expressed the need for their schools to understand the girls' lived experiences of school culture. They argued that it is only when they have a clear picture of what happened to boys and girls within the school walls that they can be able to institute effective programmes, such as career guidance and counselling sessions aimed at promoting effective gender sensitivity. They also indicated that all curricular materials, including text books and other learning tools, need to be thoroughly examined to eliminate the gender-biased ideologies, stereotypes and prejudices embodied therein. While teachers looked mainly to curriculum designers to balance the curriculum along gender lines, the girls' perspectives were that the school curriculum should be more gender-neutral and conducive to equal competition across genders. The prevalent attitudes and beliefs affected them negatively and often led to a low self-esteem and achievement motivation. They suggested that the allocation of school subjects needs to be conducted in a fair, transparent and gender-neutral manner if it is to afford them an equal and fair competition of curriculum choice.

### **Suggestions for mitigating patriarchal hegemony in the school curriculum**

The following excerpts reflect the views of the teachers and their pupils on ways of alleviating the influence of the patriarchal ideology in the school curriculum:

#### **Teachers:**

***Mrs Gunzvenzve:** Curriculum designers and authors are the ones who need to look into the issue of gender equality in the material or literature for pupils in schools. As teachers our duty is to implement a prepared curriculum using what they will have designed for us. By this I am not*

*saying we cannot influence changes in support of gender equity but this process must start with curriculum designers doing a fair job. Parents also need to play ball in this process.*

**Mrs. Salimu:** *Some teachers in this school need to understand that being born a girl or woman does not disempower us. We need to be accorded an equal and fair treatment in all human rights affairs. Yesterday I witnessed verbal abuse of girls by two male teachers who labelled the girls as destined for mere motherhood. This was after they failed the Mathematics test.*

**Mrs. Nduna:** *As teachers we need to ensure that all our pupils are given equal treatment in the schools. Some of us teachers are guilty of sexism and various forms gender biases in favour of boys. I wish we could all be impartial in our interactions with pupils. I try to promote equality of the sexes in my classes and I feel if all of us could do that.*

Arguments such as the ones above indicate that social structures and the boundaries imposed through the hidden curriculum tend to make girls suffer what Merleau-Ponty (1974) would describe as experiences transcending sense or reason, to include nonsense or lack of reason. His assertion that meanings begin with perception can thus be employed here to argue that, as human beings, the girls received unfair treatment because they were situated within a social environment in which they were perceived as *being-in-a-world* characterised by socio-cultural limits. For him, as for Giddens (2001), this implies that the importance of the agency by which the girls ought to act against their constraining environment (social structure) to change their circumstances is thwarted. It is thus reasonable to conclude that the girls' self-perceptions developed through experiences of school culture and feedback from significant others in their social environments were often predestined to lead many of them along trajectories that privileged patriarchy. The teachers' actions, attitudes and expectations towards the girls' social roles were largely responsible for their fate. They exacerbated their aspirations through pedagogic practices and general interaction patterns with pupils as girls and boys in the school and classrooms. The following views reflect the girls' unhappiness with experiences of school cultural practices. The sentiments expressed reflect concerns about what the girls viewed as the teachers' behaviour that sustained attitudes phenomena that promoted domination and subordination between males and females within their schools.

**Mildred:** *Teachers must avoid unfair treatment of us pupils because of our sex differences. Some male teachers think that our role as girls is mere reproduction of children.*

**Moudy:** *They must not think that girls cannot do well in certain subjects because this makes them to exclude some from important subjects. It also limits us from competing with the boys because of the differences in the subjects we will be studying.*

As inorganic intellectuals (Gramsci, 1971), educators (parents and teachers) wittingly or not fostered hegemonic masculinities in their children. They operated as practically-minded directors and organisers to engender and perpetuate a patriarchal ideology and hegemony through the ways in which they interact with children as girls and boys. The use of a prevalent ideology to articulate, through classroom discourses the language of a taken for granted culture and the feelings and experiences which the girls and boys have to internalise as common-sense and learn to live with is worrying. In Althusser's (1971) sense, as part of the schools' ideological state apparatuses they produced compliance in girls through ideological consent.

## Conclusion

The evidence presented in this paper highlights the prevalence of patriarchy within Zimbabwean schools and society in general. Its common-sensical nature seems to be associated with the harmony and the social division of labour that is required for social order. It is thus useful to invoke Sartre's (1980) assertion that since human beings are brought into a world which to them is devoid of any meaning but soon encounter social constructs, the puny and sometimes absurd creations of humans in their various institutionalised structures makes it necessary to deconstruct the gender biases, stereotypes and prejudices that come with the practice of child socialisation. In pursuit of this goal, Zimbabwean teachers thus need to encourage girls to take up courses or subjects such as Mathematics, Science and Technology. This can only be possible if they design curricula - subject content and teaching strategies – that promote gender equity. In addition, extra-curricular programmes can involve successful and inspirational women from the local community, industrialists, counsellors and parent liaisons that can be role models to the girls, especially during career days. Such women could be asked to speak to the pupils in order to deconstruct the myths and misconceptions of gender roles in society. In short, curriculum planners should not only be speaking to each other, but also need to establish well-functioning curriculum communities in which practices and views that are discriminatory in terms of gender are constantly examined and challenged with evidence that affirms girls' abilities and potential within schools as educational institutions. However, it is important that this be also emphasised by teacher education.

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**Understanding Your Beliefs about Teaching:  
Developing a Language for Powerful Conversations and Meaningful Change**

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**Abstract:** *We face such an unprecedented array of challenges and demands, each described and portrayed in a variety of ways, no wonder the eyes glaze during the all-too-common drive-by workshop. This paper and the tool it introduces presents both a conversation you can have internally about your teaching and a professional exchange with others about issues that matter without being defensive. We can cut through the confusing language and articulate why we do and what we do in order to give meaning to what is asked of us by policy-makers at all levels, school administrators, grade chairs, parents, and others in school communities. Meaning-making not “training” allows us to make conscious decisions to benefit our learning and that of our students.*

**Keywords:** Pedagogy, Teaching Development, Curricula

**Why the search for meaning?**

“Implementation is changing practice.... the process of altering existing practice in order to achieve more effectively certain desired learning outcomes for students.” (Fullan & Park,

1981, p. 6). The term “implementation” is often replaced by “change”, “innovation”, “revision”, and “reform” with characteristics such as the following:

- Implementation is multidimensional in that it may involve changes in the materials one uses, the methods one uses or the beliefs that one holds.
- These aspects of change are hypothetically directed towards some educational goal.
- Limiting implementation to a change in materials will unlikely bring about the kind or amount of student learning desired.
- Implementation is a process not an event.
- Any innovation will get adapted, further developed and modified during use.
- Implementation is a process of professional development and growth- both a highly personal and social experience.
- Implementation is a process of clarification.
- One hundred percent implementation is probably not desirable, and in any case is impossible.
- The success of change is dependent solely on what people do and are prepared to do (Fullan & Park, 1981, pp. 6-10, 24-26).

I cite the early work by Fullan and Park because more than 25 years later we face the same issues. For example, Fullan (2007), in his fourth edition of his now classic book on the topic argues that meaning changes with the times, that it is always “new”. He also notes (2008) how challenging it is to change our beliefs about teaching: at the heart of why we do what we do. I keep these challenges in mind as a teacher educator when I work with teacher candidates and veteran teachers as we try to make sense of what is expected of us in schools. In addition, a synthesis of studies on teaching and learning in both K-12 and college classrooms argues that personal meaning making is important in learning anything (Darling Hammond & Bransford, 2005; Donavan & Bransford, 2005; Weiman, 2007).

How do we go beyond superficial change and get at teacher practice to enhance student learning? Going deeper means revealing the beliefs behind such practice: beliefs determining in large measure ‘what people do and are prepared to do’. Or are we still victims in “drive-by workshops” using the cardiac method: “WE believe it in our hearts so YOU do it.” (Green & Myers, 1990, p. 332).

### **Examining Our Own Beliefs**

Much of the implementation literature as well as research on learning in general stresses the importance of meaning (e.g., Bussis, Chittenden., and Amarel, 1976; Fullan, 1982, 2007, 2008; Fullan, Anderson & Newton, 1986; Leithwood, 1986; Perrone, 1991; Yero, 2002; Darling Hammond and Bransford, 2005; Donavan and Bransford, 2005; Weiman, 2007). In order to make changes (or to decide not to make changes) in teaching in response to a curriculum document or district policy, we must understand what is to be implemented that is different from what we do now. To modify curriculum effectively, we must relate those necessary changes to what we already do and know. The quality of our understandings influences in large measure what we do in the classroom.

As it turns out beliefs trump facts when it comes to using the findings of research in education into policy as well (Levin, 2008). This view can be tested reading the pages in any media outlet.

So how do we get beyond the argument culture of blame and actually engage in more powerful and productive conversations about important issues in our schools and classrooms?

One vital direction is to examine our own practice. As Maxine Greene states:

“Teaching is purposeful action . . . [the teacher’s] intentions will inevitably be affected by the assumptions he makes regarding human nature and human possibility. Many of these assumptions are hidden. Most have never been activated. If he is to achieve clarity and full consciousness, the teacher must attempt to make such assumptions explicit; for only then can they be examined, analyzed and understood.” (1973, pp. 69-70).

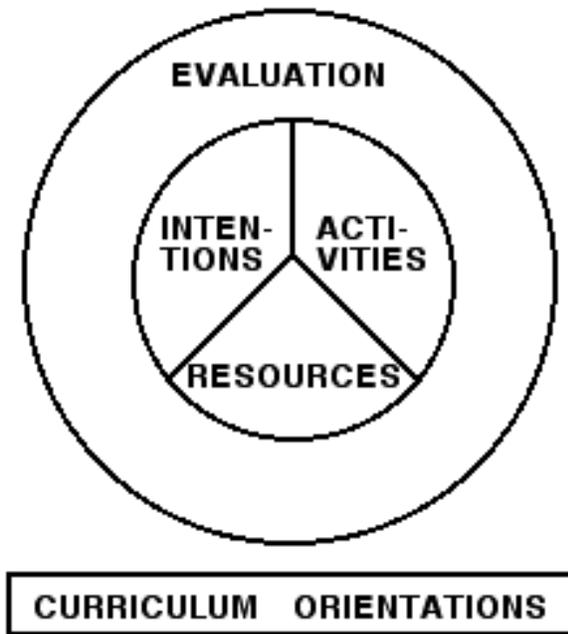
Parker Palmer takes this into current classrooms: “When I do not know myself, I cannot know who my students are. I will see them through a glass darkly, in the shadows of my unexamined life—and when I cannot see them clearly, I cannot teach them well.” (1998, p. 2).

Such a process goes beyond attending a workshop, being briefed on some new policy or reading the latest research. It involves looking at our beliefs about education, the learning process and the discipline or disciplines that we teach. We need to examine our practice in order to improve it. Sometimes, such examination results in changing what we now do in order to meet new circumstances. At other times, reflecting on our practice confirms our faith in those aspects of teaching we know and can demonstrate to be effective. Teachers, like doctors, engineers or other professionals, cannot afford to sit on their laurels<sup>1</sup>. Socrates put it well when he declared: “The unexamined life is not worth living.”

Busy as we are, how can we reflect on our beliefs and practice in meaningful ways rather than go through the motions or get defensive because we are doing the “wrong” thing?

### **Clarifying Change: The Language of Curriculum Orientations**

An educational orientation (sometimes called an approach, position, lens, or perspective) provides a framework for approaching curriculum: “a basic stance in teaching that is rooted in a world view” (Miller, 2010, p. 15). Tyler (1949) used the terms “philosophical and psychological screens” to describe this source for developing curricular objectives. Orientations can be categorized in a number of ways (e.g., Eisner & Vallance, 1974; Aoki, 1980; Miller, 1983; Brandt, 1988). How an educational orientation can act as a philosophical screen can be viewed in the context of a teacher's individual program for his or her students. According to Werner (1987, personal communication), we can view program as in the diagram below:



**INTENTIONS-** expectations, outcomes, objectives, and results of learning

**ACTIVITIES-** learning tasks and strategies to achieve desired results

**RESOURCES-** both human and material such as books

**EVALUATION-** evidence that learning has taken place and directions for further learning

**CURRICULUM ORIENTATIONS-** influence positions on the above

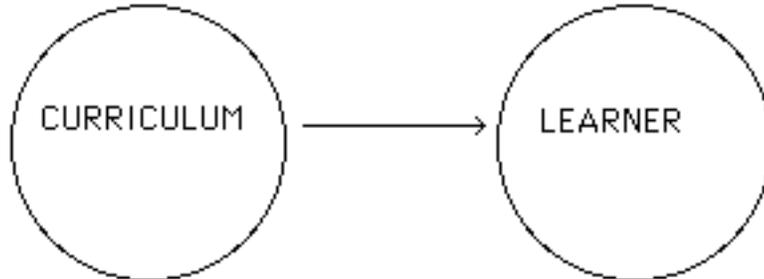
Thus, implementation is shaped from a particular perspective or orientation. How people implement educational innovations depends on how they view them. Miller and Seller have reclassified Miller's 1983 perspectives into three broad orientations (Miller & Seller, 1985). Each of these orientations holds a particular set of views regarding such aspects of education as the following:

- Aims of the curriculum
- Learning experiences
- Role of the teacher
- Evaluation
- Viewing the whole child vs viewing the child as a student
- Teacher centered vs child centered
- Personal vs public knowledge
- Process vs content
- Intrinsic vs extrinsic motivation
- Holistic vs molecular learning
- View of child as unique vs view of children sharing characteristics (from Berlak & Berlak, 1981; Miller, 1983).

Drawing from this work, researchers based at the Ontario Institute for Studies in Education (Leithwood, 1986) have argued that in order for a curriculum to be effectively implemented, there must be a match between the orientation presented by a particular guideline and the educational orientation of those responsible for teaching from it. If we apply a mechanistic view of human behavior to curriculum planning in order to teach specific facts or skills (a transmission orientation), we may have difficulty implementing a curriculum which sees students as active learners capable of intelligent problem-solving (a transaction orientation).

This conception of orientations has certain advantages over others. It represents more than two positions, thus resisting the temptation to dichotomize issues. A second feature is the relative clarity of the terms used.

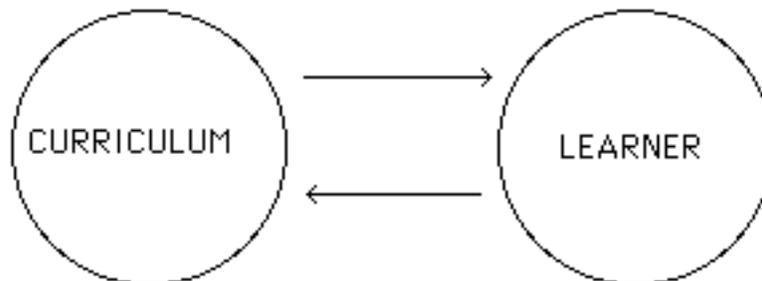
### **Transmission<sup>2</sup>**



As the name suggests, the aim of this orientation is to transmit knowledge to students in the form of facts, skills and values. This position has been regarded as the “traditional” one concentrating on rote learning methods and the breaking down of curriculum into small components to be logically analyzed. Such educational ideas as mastery learning, behavioral psychology and “cultural literacy” can be associated with this orientation as can the support of standardized tests and reading programs based on phonics.

For some learning outcomes, teaching from this orientation has had impressive results. While transmission can be argued for on the grounds of efficiency and preciseness and that these features have made for a “manageable” curriculum, this orientation may not match well how most people learn or the best teaching for some complex learning goals (Donavan and Bransford, *op. cit.*; Weiman, *op. cit.*).

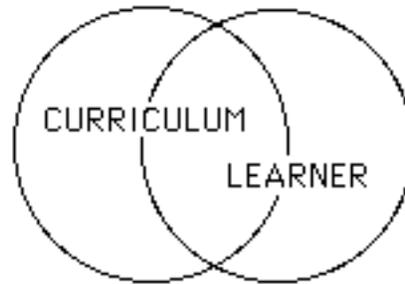
### **Transaction**



This orientation views education as a dialogue between the student and the curriculum with the student as a problem-solver. Problem-solving techniques, the theories of Vygotsky, Piaget, Kohlberg and Bruner, scientific inquiry, and the use of interviews and rubrics in assessment can be associated with this orientation. Teaching from a transaction orientation may be viewed as a “conversation” in which teachers and students learn together through a process of negotiation with the curriculum to develop a shared view of the world (Arlin, 1986; Vermette, 2009). Constructivism may be to transaction as behaviourism is to transmission.

This orientation may correspond more closely to how students actually think and learn. Yet critics of transaction have pointed to what they view as an over-reliance on logic and a downplaying of intuition and creative thinking. Advocates of a transmission orientation also note that for some of these transactional approaches to work students need a basic foundation of content and skill to the relevant subject discipline (Willingham, 2009).

## Transformation



This position stresses personal and social change in which the person is interrelated with the environment rather than have control over it. The aim is self-actualization, personal or organizational change. Transcendentalism, humanism and social change are at the heart of this orientation. The work of John Holt, Michael Apple, Paolo Freire and the alternative schools movement can be associated with this orientation. Concepts influenced by this orientation include mainstreaming, the whole student, holistic learning, integration of subject matter, creative writing, inclusion, service learning, and social justice. Interests and teaching to promote multiple intelligences as well as the social and emotional development of students reflect this orientation.

While transformation may move us closer to a world in which the needs of all are respected, this orientation has not developed a coherent body of thought to the extent seen in the other orientations.

While a person from a transmission orientation might buy a mousetrap and use it as instructed, a person from a transaction orientation would work to develop alternatives to the trap. A person from a transformation orientation might question why one would want to bother catching a mouse in the first place? Responding to the question “What time is it?” a person might give one of the following answers depending on his or her orientation:

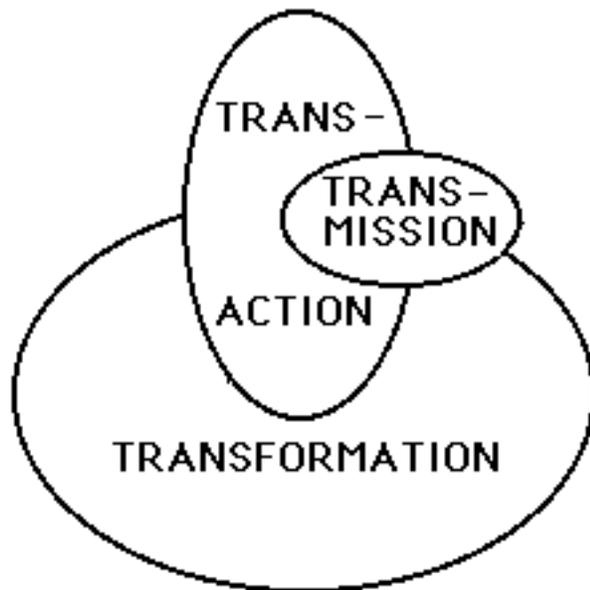
- Transmission- “It's 10.30 a.m.”
- Transaction- “What time do you think it is?”
- Transformation- “What time do you want it to be?”

To be serious, despite the descriptions above, one should not jump to conclusions. Most teachers and educational programs work from a combination of orientations, although one orientation may be stressed more than others. The orientations are in a sense inclusive. A transactional program applies cognitive skills to basic content, the acquisition of which is usually identified as part of a transmission orientation. Curricula aiming at personal or social change

often attempts to provide students with the required knowledge and skills in order to achieve these ends.

Yet it would be a mistake to conclude that the orientations are strictly hierarchical. Transaction is not “better” than transmission. There is a place in schools for all orientations, although teachers may operate too often from a transmission mode, especially in an era of standards framed by testing. We can favour one orientation as our “default” *modus operandi*, but be open to shift when appropriate with the learning goal, needs of students, and the desired learning outcomes.

The following is one way to connect the orientations (Miller, 2010, p. 44).



Thus, we support the goals of differentiated instruction and strive to achieve them with some degree of comfort. This small step towards open and fair-mindedness can increase our capacity for professional growth.

### **Curriculum Orientations and Implementation**

To refer again to Fullan and Park:

“The ultimate goal of implementation is not to implement X or Y particular innovation, but to develop the “capacity” for systems, individuals, and schools to process all innovations and revisions.... Implementation of any specific innovation will probably get easier as that basic capacity gets established.” (1981, p. 26).

The concept of curriculum orientations can help to develop that capacity for change by making clear the nature of the changes needed to implement a curriculum guideline as well as a provincial, state, or school board policy and promote the powerful conversations that go beyond the pundits and politicians.

Turning to Michael Fullan once again (1982) he asks. if “effective implementation involves the development of individual and organizational meaning vis-a-vis a particular change”, [it is the task of the consultant, or other designated change agent], to “facilitate the development of that meaning” (p. 188).

How do we share conversations that result in shared meaning? As a school district consultant in the midst of tensions around a new set of provincial guidelines I applied my learning from a year in another province to develop an approach to help the teachers I worked with make sense of what was being asked and to see where the real gaps were instead of expending energy on illusory gaps created by a misunderstanding of the new language used in curriculum policy and practice. The use of a curriculum orientations inventory proved to be a useful tool for this purpose.

### **A Curriculum Orientations Inventory**

Teachers are busy people. Their world involves hundreds of conscious and unconscious decisions about what to do next in a classroom. Such decisions are made in every class, every day. Such decisions are usually made alone, on the spot, and without the support of colleagues. Immersed in what it perceives to be the “practical”, school culture tends to frown on the “expert”. “Don't give me any of that theory stuff. Give me something I can use in my class tomorrow” is a common refrain.

The inventory is offered as a tool for getting teachers to reflect on their practice. The inventory does not tell you what a person truly believes. Transmission teaching is currently “out of fashion” in some places and back with a vengeance in others. Teachers know this. Thus, like their students they know what the “wrong” answer is.

A useful language for professional dialogue can serve to reduce or at least manage the political and ideological wars that so often divide the education community into angry camps. If we bring our hidden values to the surface in ways that are respectful, professional, and subject to evidence, we can have powerful conversations and meaningful change.

The inventory can do the following:

- It gets teachers talking about their beliefs without much jargon.
- Such discussion can readily focus on the gap between a teacher, subject department or school staff's orientation to curriculum and the orientation of a curriculum guideline, board or ministry policy. For example, recent changes in Ontario History and Social Studies curriculum may be greater in the areas of assessment and evaluation procedures than in the actual curriculum content itself. We can check this assumption using the inventory.
- The items can be completed in less than 20 minutes.
- The Miller and Seller conceptualization of curriculum orientations, having fewer categories than other schemes, is comprehensible by teacher-practitioners. Nevertheless by being more than two categories may lessen the temptation to falsely dichotomize issues in schooling
- The items are organized around categories familiar to teachers.

- The items as in this sample are generic. They are not meant to be specific to a particular subject. Although subject-specific inventories can be designed, a generic inventory can be used by a staff to deal with aspects of a total school program.
- A subject-specific inventory can be designed to look at curriculum changes to see what we already do, what we could do, and look for ways to meet new demands if they are in fact as new as promoted.

With these purposes in mind, the following inventory is offered for general use in taking a first step in helping us help ourselves by being consciously reflective practitioners. This tool also offers a language and a means for discussing serious issues in teaching and learning. This inventory has proven to be a powerful conversation starter that cuts through the language that is thrown at us to examine more meaningfully those underlying issues and values that we hold.

<sup>1</sup> A considerable and long-standing literature centring on the theme of a “reflective practitioner” exists; for example, see Schon, 1983, 1987; Hunt, 1987, Ross, 1987.

<sup>2</sup> These descriptions are adapted from Miller & Seller, 1985 & Leithwood, 1986. These references should be consulted for additional detail.

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**SETTING EXPECTATIONS: WHAT STUDENTS SHOULD LEARN**

Rank the statements in each row- **1** for the statement you agree with most, **3** for the one you agree with least, and **2** for the remaining statement. Ties are NOT permitted. Put the numbers in the spaces provided.

<b>Row 1</b> _____ Learning to work as a member of a team is a key learning goal.	<b>Row 1</b> _____ Schools should help students develop a sense of self worth.	<b>Row 1</b> _____ We should teach knowledge and skills considered essential by society.
<b>Row 2</b> _____ A course should stress key knowledge, concepts, and skills in a subject discipline.	<b>Row 2</b> _____ Good courses stress themes integrating many disciplines.	<b>Row 2</b> _____ Curriculum should stress process and focus on developing critical thinking.
<b>Row 3</b> _____ My course should primarily focus on content.	<b>Row 3</b> _____ I want to teach my students how to learn as well as what to learn.	<b>Row 3</b> _____ I want to make my course personally relevant to students.
<b>Row 4</b> _____ Learning outcomes and standards should connect to the abilities of the learner.	<b>Row 4</b> _____ Learning outcomes and standards should be as specific as possible, best stated in behavioral terms.	<b>Row 4</b> _____ Students should have an important say to setting learning outcomes and standards.
<b>Row 5</b> _____ Schools should prepare students to understand the world in which they live.	<b>Row 5</b> _____ Students need to learn how best to participate as citizens in a democracy.	<b>Row 5</b> _____ Teachers should help students effect social, political, and /or economic change.

## Instructions to Maximize Learning

Rank the statements in each row- **1** for the statement you agree with most, **3** for the one to agree with least, and **2** for the remaining statement. Ties are NOT permitted. Put the numbers in the spaces provided.

<p><b>Row 1</b> _____ A good lecture presenting basic information is a key teaching strategy.</p>	<p><b>Row 1</b> _____ Teachers must be facilitators to stimulate thinking and challenge perspectives.</p>	<p><b>Row 1</b> _____ Classroom activities should be experiential and student centred.</p>
<p><b>Row 2</b> _____ A rich program should involve community resources and experiences.</p>	<p><b>Row 2</b> _____ Instruction should begin at a student's current level of understanding</p>	<p><b>Row 2</b> _____ Teachers should give strong direction if they want learning to occur.</p>
<p><b>Row 3</b> _____ Group work is important so that students can look at a problem or issue from a variety of perspectives.</p>	<p><b>Row 3</b> _____ Group work can work in moderation but it can get in the way of real learning if overused.</p>	<p><b>Row 3</b> _____ Group work is important so that students can take ownership in their learning.</p>
<p><b>Row 4</b> _____ Learning a skill is like playing golf. You must get used to the whole action. Otherwise, you just mess up.</p>	<p><b>Row 4</b> _____ Skills are best taught by breaking them down into sub-skills in a logical sequence from simple to complex.</p>	<p><b>Row 4</b> _____ Although skills may be broken down for purposes of analysis, it's the entire thinking process that counts.</p>
<p><b>Row 5</b> _____ Written work should be preceded by student discussion so that the nature of the inquiry is clear.</p>	<p><b>Row 5</b> _____ A vital goal for written work is to prepare students for more formal writing in the next grade.</p>	<p><b>Row 5</b> _____ Writing in class should be personal and creative.</p>

**ASSESSMENT & EVALUATION:  
HOW DO YOU KNOW THAT THEY KNOW?**

Rank the statements in each row- **1** for the statement you agree with most, **3** for the one to agree with least, and **2** for the remaining statement. Ties are NOT permitted. Put the numbers in the spaces provided.

<b>Row 1</b> _____ The primary aim of evaluation is to determine student mastery of content and / or skills.	<b>Row 1</b> _____ Assessing growth in students' thoughtful behaviours (habits of mind) is vital for further learning.	<b>Row 1</b> _____ Evaluation should be varied so that the whole student is assessed.
<b>Row 2</b> _____ Sound assessment includes student input, including self and peer assessment.	<b>Row 2</b> _____ Assessment should be based on specific criteria and standards that all students must attain.	<b>Row 2</b> _____ My assessment should consider the knowledge, skills, and habits of mind students bring to class.
<b>Row 3</b> _____ Student should help in constructing rubrics for grading work.	<b>Row 3</b> _____ Teacher marking schemes as the best tools for grading.	<b>Row 3</b> _____ I think that looking at number or letter grades hinders real learning.
<b>Row 4</b> _____ Satisfied students are clear evidence that learning is taking place.	<b>Row 4</b> _____ A lively class discussion is clear evidence that learning is taking place.	<b>Row 4</b> _____ Students attentively listening to the teacher prove that learning is taking place.
<b>Row 5</b> _____ If you want to find out what students have learned, test them.	<b>Row 5</b> _____ If you want to find out what students have learned, ask them.	<b>Row 5</b> _____ Give students a real-life problem or task and watch them work at it to find out what they have learned.

### VIEWS ABOUT OTHER TEACHING / LEARNING ASPECTS

Rank the statements in each row- 1 for the statement you agree with most, etc. Ties are NOT permitted. Put the numbers in the spaces provided.

<p><b>Row 1</b> _____ I like hand-on PD so I can apply my learning to my work.</p>	<p><b>Row 1</b> _____ I like PD sessions when I can discuss issues with my colleagues.</p>	<p><b>Row 1</b> _____ Good professional development happens when I hear an engaging speaker.</p>
<p><b>Row 2</b> _____ My most important resource is a good textbook.</p>	<p><b>Row 2</b> _____ I strive to use a wide variety of resources in my classes.</p>	<p><b>Row 2</b> _____ I prefer students' own experiences and community resources for my classroom.</p>
<p><b>Row 3</b> _____ The internet is a place where people can wrestle with issues through collaboration.</p>	<p><b>Row 3</b> _____ The internet is best used when students can surf for ideas that interest them.</p>	<p><b>Row 3</b> _____ The internet is a great place for getting lesson ideas and information for upcoming topics.</p>
<p><b>Row 4</b> _____ Students should be primarily viewed as individuals.</p>	<p><b>Row 4</b> _____ I treat my students as equals who can achieve the stated standards and learning goals.</p>	<p><b>Row 4</b> _____ Differences among my students such as learning styles need to be considered in a sound program.</p>
<p><b>Row 5</b> _____ Schools should be seen as places where teachers and students work together to develop a shared meaning of the world.</p>	<p><b>Row 5</b> _____ Schools should be inviting places In which students can work things out for themselves.</p>	<p><b>Row 5</b> _____ Schools should be places where teachers teach students what they need to know.</p>

### Scoring

This is a two-step process.

Step 1. Transpose the numbers into the right cells on the charts below.

- E.g., If your order for Row 1 of the Expectations section was 1 3 2, that is what you put in the appropriate cells.

Step 2. Add up the numbers **according to category** and total as indicated.

- Add all "M" statements together, then "A", then "F".
- Your score for each section should be between 5 and 15.

### Setting Expectations: What Student Should Learn

<b>Row 1 <u>A</u></b>	<b>Row 1 <u>F</u></b>	<b>Row 1 <u>M</u></b>
<b>Row 2 <u>M</u></b>	<b>Row 2 <u>F</u></b>	<b>Row 2 <u>A</u></b>
<b>Row 3 <u>M</u></b>	<b>Row 3 <u>A</u></b>	<b>Row 3 <u>F</u></b>
<b>Row 4 <u>A</u></b>	<b>Row 4 <u>M</u></b>	<b>Row 4 <u>F</u></b>
<b>Row 5 <u>M</u></b>	<b>Row 5 <u>A</u></b>	<b>Row 5 <u>F</u></b>

**Section Score : All numbers when totaled should add up 30**

M statements= \_\_\_    A statements= \_\_\_    F statements= \_\_\_

### INSTRUCTION TO MAXIMIZE LEARNING

<b>Row 1 <u>M</u></b>	<b>Row 1 <u>A</u></b>	<b>Row 1 <u>F</u></b>
<b>Row 2 <u>F</u></b>	<b>Row 2 <u>A</u></b>	<b>Row 2 <u>M</u></b>
<b>Row 3 <u>A</u></b>	<b>Row 3 <u>M</u></b>	<b>Row 3 <u>F</u></b>
<b>Row 4 <u>F</u></b>	<b>Row 4 <u>M</u></b>	<b>Row 4 <u>A</u></b>
<b>Row 5 <u>A</u></b>	<b>Row 5 <u>M</u></b>	<b>Row 5 <u>F</u></b>

**Section Score : All numbers when totaled should add up 30 (AS BEFORE)**

M statements= \_\_\_    A statements= \_\_\_    F statements= \_\_\_

### ASSESSMENT & EVALUATION: HOW DO YOU KNOW THAT THEY KNOW?

<b>Row 1 <u>M</u></b>	<b>Row 1 <u>A</u></b>	<b>Row 1 <u>F</u></b>
<b>Row 2 <u>F</u></b>	<b>Row 2 <u>M</u></b>	<b>Row 2 <u>A</u></b>
<b>Row 3 <u>A</u></b>	<b>Row 3 <u>M</u></b>	<b>Row 3 <u>F</u></b>
<b>Row 4 <u>F</u></b>	<b>Row 4 <u>A</u></b>	<b>Row 4 <u>M</u></b>
<b>Row 5 <u>M</u></b>	<b>Row 5 <u>F</u></b>	<b>Row 5 <u>A</u></b>

M statements= \_\_\_    A statements= \_\_\_    F statements= \_\_\_

## Views about Teaching

<b>Row 1 <u>F</u></b>	<b>Row 1 <u>A</u></b>	<b>Row 1 <u>M</u></b>
<b>Row 2 <u>M</u></b>	<b>Row 2 <u>A</u></b>	<b>Row 2 <u>F</u></b>
<b>Row 3 <u>A</u></b>	<b>Row 3 <u>F</u></b>	<b>Row 3 <u>M</u></b>
<b>Row 4 <u>F</u></b>	<b>Row 4 <u>M</u></b>	<b>Row 4 <u>A</u></b>
<b>Row 5 <u>A</u></b>	<b>Row 5 <u>F</u></b>	<b>Row 5 <u>M</u></b>

**Section Score : All numbers when totaled should add up 30**

**M statements= \_\_\_    A statements= \_\_\_    F statements= \_\_\_**

<b>TOTAL SCORE (all numbers when totaled should add up to 120</b> <b>M statements=            A statements=            F statements=</b>  <b>THE LOWER THE SCORE, THE MORE <u>DOMINANT</u> THE ORIENTATION.</b>
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**Why do you think you scored as you did?**

## Nigerian Secondary School Teachers' Perception towards Teacher Leadership

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**Abstract:** *This qualitative research explores how secondary school teachers in Nigerian public secondary schools perceive teacher leadership. It determines the extent to which teachers participate in leadership activities within and outside schools. Data for this study was elicited through an analysis of documents and semi-structured interview. The participants included three principals, three vice principals, nine teachers and a Tutor General/Permanent Secretary of an Education District in Lagos, Nigeria. This paper highlights the benefits of teacher leadership and the roles teachers play in school improvement. The findings from the study supported the notion provided by theorists that administrators and teachers have vague conceptions about the meaning of teacher leadership. It also showed that the level of collaboration among teachers was low in relation to academic matters and high in matters related to extracurricular and social activities. Some of the barriers militating against teacher leadership that the findings highlighted included: inadequate trust between teachers and administrators, school norms and beliefs, micro-politics and teacher's attitude towards work. The finding in this research lends credence to studies conducted in the UK, USA, Canada and Australia on teacher leadership which confirmed that if teacher leadership is to thrive in, schools teachers must work collaboratively and their roles and responsibilities must be distributed within the schools.*

**Keywords:** Teacher leadership, distributed leadership, school culture, Nigerian secondary schools teacher identity.

### Introduction

In recent times, teachers' professional responsibilities have increased exponentially. School leaders are currently expected to assume administrative responsibilities; ensure student safety; and while also engaging in teaching and other curriculum related activities. Furthermore, school leaders are under pressure to improve student performance in public schools (Abari, 2005). These teachers' efforts are not made known due to inadequate facilities, the socio-economic and political factors in schools (Olujuwon, 2013). Effective school leadership is about providing vision, direction and support towards a preferred school (Harris & Muijs, 2005). The studies of Portin, Alejano, Knapp and Marzolf (2006) and Water, Marzano and McNulty (2003, 2005) revealed that effective school leadership make significance improvement in students' learning outcomes and development. Similarly, Fullan (2002) believed that effective school leaders are the key to large-scale, sustainable education reform. Water, Marzano and McNulty (2003) explained the factors that make school leadership effective to include, the school, (curriculum, goals, parental involvement, orderly environment and collegiality), the teacher (instruction and curriculum) and student (motivation). This is in tandem with the analysis of critical leadership practices that influences student learning outcomes as identified by Leithwood

and Jantzi (2005) such as the setting of direction through vision, goals and expectations, helping of individual teachers through support and modelling, the redesigning of the organisation to foster collaboration and engage families and community and for providing support and resources for managing organisations.

New challenges in improving schooling and student achievement need new partnerships which governments can help with resources, facilities and where appropriate, initiate with enhanced involvement of key stakeholders (Institute Alliance of Leadership Education Institution (IALEI), 2008). Similarly, teacher leaders have been described as those in the first place are expert teachers, who spend majority of their time in the classroom but take on leadership roles, like team leaders, departmental heads and union representatives, at times when development and innovation are needed” (Harris & Muijs, 2005; IEL, 2001). This means creating the conditions in which people work and learn together, where they construct and refine meaning, leading to a shared purpose of goals (Harris & Muijs, 2005).

Moreover, teachers are recognised as agent of change and are instrumental to educational reforms and school improvement (Aluede, 2009). In spite that teaching is an essential service in national development; the profession did not assume considerable respect in Nigerian society compared with other professions (Adelabu, 2005). Literature also revealed the instances that the professional and personal identities of teachers are completely ignored in reform strategies and educational innovation policies (vanVeen, Slegers & van de Ven, 2005). Furthermore, there are many impediments preventing teacher from being leaders such as bureaucracy in schools, teachers’ perception of leadership and the teacher preparatory programme as well as role definitions and time (Blaise, 1991; Zinn, 1997). The roles and responsibilities of teachers as leaders are reflected in their functions and professionals, but studies explained that teachers were reluctant in being regarded as “leaders” and do not want to take on formal titles of leadership. Meanwhile, they work through informal channels and effect changes in schools systems (Fairman & Mackenzie, 2012). It was in this perspective that the researchers attempts to answer the question: What are the Nigerian secondary schools teachers’ perceptions towards teacher leadership?

## **Literature Review**

Teacher leadership is a process by which teachers; individually or collectively influence their colleagues as well as other members of the school community as they try to bring about better teaching and learning processes. The Institute of Educational Leadership report of 2001 in the United States of America, emphasized teacher leadership as a means of mobilizing the untapped attributes of teachers to strengthen learners’ achievement at the ground level, thus principals, teachers and students benefits from teacher leadership. Teacher leadership is about the discovery of teachers’ potentials for collaboration in school leadership (Institute of Educational leadership, IEL, 2001). Recent researches have called for distributed forms of leadership where all teachers are viewed as having the capacity to lead and where power is redistributed across the organisation (Katzenmeyer & Moller, 2001; Supovitz, Sirinides & May, 2010).

However, new challenges in improving schooling and student achievement need new partnerships which governments can help with resources, facilities and where appropriate, initiate with enhanced involvement of key stakeholders (Institute Alliance of Leadership Education Institution (IALEI), 2008). Similarly, teacher leaders have been described firstly as

expert teachers, who spend majority of their time in the classroom but take on leadership roles, like team leaders, departmental heads and union representatives, at times when development and innovation are needed” (Harris & Muijs, 2005; IEL, 2001). This means creating the conditions in which people work and learn together, where they construct and refine meaning, leading to a shared purpose of goals (Harris & Muijs, 2005).

York-Barr and Duke’s (2004) study observes that teacher leadership promotes “continuous improvement of teaching and learning . . . with the result being increased achievement for every pupil” (p. 255). They categorised the benefits of teacher leadership into four namely: decision-making, teachers’ expertise, recognition and growth as well as student achievement. In spite of the benefits of teacher leadership, there has been lots of contention on the definition. The understanding of teacher leadership depends on “who” is doing the defining (Leonard, Petta & Porter, 2012). In a study carried out by Angelle and Schmid (2007) in South-Eastern United States, participants perceived teacher leadership from different perspectives either as positional designee, role model, or exemplary leader. They concluded that teacher leadership is defined in terms of how it was lived in the context of the individual school and most often it is described in terms of a person (Angelle & Schmid, 2007).

Similarly, Leonard et al. (2012) inform that different researchers in the last 20 years have wrestled with the definition and conceptualisation of teacher leadership. This corroborates the findings of this research, about participants understanding of teacher leadership; their responses were varied, they see teacher leadership as formal teacher roles, role models as well as in mastery of subject matter. However in this study, teachers collaborate more in extracurricular activities through social programmes than in academics due to their perception of teacher leadership.

## **Research Methodology**

This study adopted a qualitative research methodology which is exploratory and descriptive in a multiple case study. This was employed to understand issues from participants’ viewpoints (Struwig & Stead, 2004). Also, how the participants’ experiences were created and given meaning (Denzin & Lincoln, 2003). The participants were purposefully selected from the five public urban schools of the study because they are major stakeholders and believed to be competent to provide answers to the research question. There were 9 teachers, 3 Principals, 3 Vice-Principals and 1 Educational Administrator in Education District IV.

Data was collected by means of semi-structured interviews and documentary evidence. The interviews were conducted at the school sites, after school hours and during free periods over an eight month periods. The interviews elicited information on the participants’ biographical information, how they gain, maintain and exercise leadership and their perception towards teacher leadership (Robson, 2002). The interviews were audio-taped for easy verbatim transcriptions of participants’ responses in order to enhance credibility and trustworthiness. A minimum of one hour was spent on each interview. Data from the semi-structured interview and documentary evidence were triangulated in order to establish the credibility of findings and easy interpretations (Struwig & Stead, 2005). Data was analysed using content and discourse analysis so as to understand the interaction and the literal meaning of language of people in their day-to-day activities (Shaw & Bailey, 2009).

Ethical clearance to conduct the study was obtained from the Faculty of Education's Ethics Committee of the University of Johannesburg; the Education District VI in Lagos, Nigeria; and the principals of the five public secondary schools. We used pseudonyms to protect the identity of the participants and the schools used in the study.

### **Research Context**

The five schools in this context are located in urban area in Lagos and are funded solely by the Lagos State Government. In addition, all the participants are full time staff and are members of the Nigeria Union of Teachers. They are also certified by the Teachers Registration Council of Nigeria (TRCN). One of the schools in the study is situated in a military facility, two in an estate; one is close to the seaports in Lagos and one situated very close to a major highway. Harris and Chapman (2002.p.2) research revealed that effective leaders in challenging schools are constantly managing tensions and problems directly related to the particular circumstances and context of the school. The main leadership task facing them is one of coping with unpredictability, conflict and dissent on a daily basis without discarding core values.

### **Data Analysis**

Data was presented using direct quotes and comments of participants. The process of analysis of the enormous amount of data collected through semi-structured interview and policy document analysis led to the categorisation of major themes which translate into different challenges militating against teacher leadership in schools. These themes include inadequate trust, school culture, micro-politics and teacher's attitude.

### **Inadequate Trust**

Inadequate trust refers to a scenario when followers no longer have confidence in their leader while trust is seen as confidence in or reliance on the integrity, veracity, justice, friendship, or other sound principles, of another person or group (Louis, 2007). Similarly, Hoy and Tschannen-Moran (2003) offers a comprehensive definition that "trust is an individual's or group's willingness to be vulnerable to another party based on the confidence that the latter party is benevolent, reliable, competent, honest, and open" (p. 189). In the schools system, all professionals are dependent on one another to achieve school goals and empowered by each other's efforts. Trustworthiness is typically judged according to these five main facets: benevolence, reliability, competence, honesty and openness.

In the study, four teachers raised the issue of lack of trust among colleagues as one of the hindrances to the practice of leadership in school. An excerpt from Bayo, one of the teachers interviewed revealed thus "When the authority (school Management) does not have trust in you with which to carry out an exercise .....That's what mistrust can do." The excerpt from Bayo shows that lack of confidence by management on teachers' capability in accomplishing tasks lead to mistrust. This was also corroborated by Njoku, another teacher, who said, "The hindrance is mistrust, or poor communication, when information is not effectively passed. Njoku believed that the cause of mistrust is poor communication between the leader and the follower.

Inadequate trust could occur in schools as a result of poor communication, discriminations in workplaces, lack of confidence on the part of the teacher. Inadequate trust may stifle innovation, cause conflicts, unhealthy rivalry and could lead to some unwholesome

practices in schools. When there is trust, it fosters necessary social exchanges among school professionals. This would enable them to learning from one another and experimenting with new practices (Bryk & Schneider, 2003).

It was observed that trust helps build relationship and helps uplift schools towards academic achievement. This study corroborates that of Ngcobo and Tikly's (2010) that trust, fairness and collaborative action contributes to school effectiveness. In other to foster teacher professionalism in school Tschannen-Moran (2009) enjoin school leaders to resist bureaucratic orientation, with its implicit distrust but adopt practices that lead to strong trust among school leaders, teachers, students and parents (Tschannen-Moran, 2009).

### **School Culture**

School culture essentially refers to 'the way we do things around here'. It is meant to describe the character of a school as it reflects deep patterns of values, beliefs and traditions that have been formed over the course of its history (Inuwa & Yusof, 2012). In this respect, one teacher, one VP raised the issue of school culture. Butter, one of the teachers interviewed believes that any leadership role to be exhibited by teachers must be in consonant with the tradition of that school as well as that of the host community of the school. Butter remarks, "One ah...ah the leadership role which is expected of a teacher to play must follow the tradition of that school. The leader must follow the do and don'ts of the school as well as that of the host community."

This is buttressed by Saida, a vice principal, that in order to have a healthy relationship with the host community, the culture where the school is located should be respected. Saida notes, "You will not get on with them. So, whatever is a culture.... or the social life of where the school is located should be respected."

As all schools are not alike, it is expected that different types of organisational climate prevail in schools. Any climate that is prevalent in schools must be used to achieve success for the school. Research has revealed that school leaders must understand school's culture before implementing change (Bulach, 1999; Mortimore, 2001). This will enhance understanding of the values, beliefs and norms that is prevalent in the organisation.

### **Micro Politics**

Micro politics is the use of formal and informal power by individuals and groups to achieve their goals in organisations (Blase, 1991). All 16 participants believed that micro-politics occurs in various ways in schools either in promotion or distribution of responsibilities. Three teachers view it as form of ethnicity, three VPs and the TGPS view it as part of human existence, while some believe it is as a result of ethnicity. In addition, one teacher observe it as forming of cliques by colleagues in schools and one principal believes it as part of management but suggests that fairness is needed. Accordingly, three teachers and one principal note the negative effects of micro-politics on teaching and learning.

Njoku explains the negative effect of micro politics due to the disparity in appointments which affects cordial relationships among colleagues in school. Njoku illustration shows that: It influences negatively. We have a situation where a junior officer is directly placed over a senior officer. The possibility of the latter carrying out instructions from the

former will be very difficult. Look at this scenario, you are a level 16 officer and a level 15 is made a principal above you and he/she is giving directives, can you take it?. Unless there is an adjustment in the organogram where people are put in positions fit for them.

To buttress the view of Njoku, High, one of the VP's, interviewed explains the role politics played in teachers, Vice Principals and Principals' appointments and even in the appointment of students as prefects in schools which has been entrenched in the school culture as part of teachers' practices. High comments thus:

I must say this that micro-politics have a role to play even in the appointment of teachers, in the appointment of vice-principals, principals even in the appointment of emm... prefects especially the head boy, the head girl in the schools around this areas, you know, it has really gone a long way.

Boladale, another teacher, explained that micro politics affects teacher and learning and it is an entrenched act of favouritism which causes dissatisfaction and mistrust among colleagues in school systems. According to Boladale, "It affects it in a great deal, we believe that in a system where certain people appear to be more favoured than others, it creates bitterness and lack of trust by some people in the school."

It was revealed micro politics leads to favouritism and this is preferring someone or group of people on the basis of liking or disliking the person or the use of power unfairly in an organisation and this act can manifest in many ways (Sadoza, Saman, Marri & Samay, 2012; Swenson, 2006). Marshall and Scribner (1991) state that "power relationships, conflict, and the policy process as concepts are central to the study of political dynamics that exist within schools" p. 349. This made Kelchtermans (2005) to argue "that professional and meaningful interactions of teachers with their professional context contain a fundamental political dimension" p. 995. This reveals, that in human interactions, there is bound to be elements of political elements which could either be positive or negative but based on the study participants were not happy with the disparities seen in the educational setting as regards promotion and this has affected relationships with colleagues.

### **Teachers' Attitude**

Teacher attitude is the approach or mind-set of teachers in the teaching and learning processes which could be cognitive or psychological. An attitude is described as "a disposition to respond favourably or unfavourably towards an object, person, institution or event" (Webster, Mavies, Timothy & Cordial (2012) p. 33). It could also be the "very general evaluations that people hold of themselves, other people, objects and issues" (Webster et al., (2012) p. 33). According to Brief and Weiss (2002.p.280), the organisations in where people work affect their thoughts, feelings and actions just as people's thoughts, feelings, and actions affect the organisations in where they work. In respect of teacher attitudes in schools, there were three teachers' responses. One of them, Massarawa, explains how teachers do not want to respect their leaders, take to corrections or follow instructions. He further stated, that there were cultures of indifference in teachers that after all, "nobody can do anything" to reprimand or sanction them, it is like a vicious cycle. Teachers are not ready to provide leadership to their colleagues or subordinates. It displays carefree attitude. It may affect academic effectiveness in schools. In Massarawa's words:

Many teachers do not want to bend to teacher leadership...If HOD call any teacher come, you are not doing this' he will just look at you, he won't abuse you, he will just flat your rule. He/she knows you cannot do anything to him or her. So, it goes across like that.

Another teacher, Orji buttresses the view of Massarawa on the attitude of teachers in schools, in that lazy teacher when given assignment outside teaching and learning disregard orders from constituted authorities. Orji notes that "...the lazy teachers, because, I always persist on them to do their work, to write their note of lesson, they see me as a different thing." This reveals that some teachers are lazy in their professional duties and responsibilities. They wait to be reminded or forced to ensure that their lessons notes are written and are up to date. Any leader that ensures right things are done is most times not liked and could be labelled. This is related to definition of attitude towards work by Ponticell (2006) as "the mental positions, feelings, or emotions that employees associate with work and the workplace" (p. 63). A classical example that comes to mind is the Douglas Macgregor (1960) Theory X and Y. In theory X, employees are viewed generally as having negative attitudes towards work; they are termed "lazy" and are motivated only by money.

## **Discussions**

This study investigated the perceptions of teacher leaders towards teacher leadership in public secondary schools in Nigeria. Two methods of data collection namely, semi-structured interviews and documents analysis were persuasively used. The study showed that problems militating against the practice of teacher leadership are artificial and they are caused by teachers, government and the society at large. Collectively, these problems hamper effective teaching and learning process and teacher leadership in schools.

The findings are important as they revealed factors that hinder distributed leadership in schools. Consequently, inadequate trust hinders effective relationships and collaboration among colleagues in schools. The practice of micro-politics visible in promotion and distribution of leadership roles and responsibilities, thus, hinders creativity, professionalism and merit. This will not augur well with teaching and learning of the 21<sup>st</sup> century that lays emphasis on knowledge, innovations, collaborations and creativity. Constitutional and international instruments that guarantee freedom from any form of discrimination in any place should be enforced. This will instil confidence in teachers thereby improve teaching and learning. Any clog in the wheel of progress for professional development and career progression of teachers should be removed as this will make them to be de-motivated and this would affect schools and the country. Therefore, teacher must be alive to their professional responsibilities and must be accountable to themselves, the teaching profession, parents and the students. Any actions or inactions that would jeopardise learning outcomes should be avoided. As a result of this, roles and responsibilities must be distributed as this would bring to the fore "untapped" qualities of teacher and help to achieve students learning outcomes and help in the vision of transforming Nigeria by the year 2020. This study corroborates earlier findings that there are obstacles in the development of teacher leadership (Harris & Muijs, 2002; Zinn, 1997).

## **Conclusion**

The study showed that the challenges faced by teachers in Nigerian public schools are artificial. The remedies to these challenges include dialogue, trust, respect and collaboration so

as to engender true academic environment. The findings revealed that inadequate trust; teachers' attitude coupled with micro-politics affect teacher morale, job satisfaction and by extension affects the teaching and learning processes in schools. In addition, mistrust, low perception of teachers to teacher leadership affects teachers' performance in 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 education. All these included but not limited to providing conducive teaching and learning environment, but putting in place an effective conflict resolution mechanism as well as strong emphasis on professionalism will lead to the realisation of Nigerian national educational goals. In addition, the study shows the need for distributed leadership in schools that will foster collaboration, networking and exchange of ideas. In addition, all relevant agencies should ensure that policy statements that guarantee freedom from any form of discrimination are upheld. This will enhance professionalism in teaching and remove apathy in the system. Furthermore, there is need to encourage in schools, open and effective communication that will help to clarify ambiguity with the provision for a feedback. More importantly, teachers should uphold professional ethics and standards and any action or words that will jeopardise attainment of goals should be done away with and above all, schools should be made to be conducive for effecting teaching and learning purposes.

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## Should it stay or should it go? Re-considering the Pre-service Teacher Education Admissions Interview

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**Abstract:** *Ontario teacher education is transitioning from a two-semester to a four-semester program. As two members of one Ontario faculty of education, we are preparing for this shift by considering the past, examining the present, and imagining the future of teacher education. One component of imagining the future of our program includes the admission selection criteria. As such, this paper re-examines a now defunct admissions interview practice, and frames the practice within the body of existing and related research within, and outside of the teacher education discipline. A cursory analysis of our former admissions interview revealed that some components of the process were in alignment with best practices documented in the literature. The analysis also revealed that substantial work is required (e.g., research, faculty discussion, vision of our graduates) prior to developing new policies and procedures regarding admissions interviews. We present some of key questions we are considering that may help guide future research and program decisions.*

**Keywords:** teacher education, admission criteria, interview

### Introduction

If teacher education is considered as not just a major students choose while making their way through college (a private choice and a private good) but as a profession that serves social goals and purposes, the question of selection into teacher education takes on new meaning (Darling-Hammond, 2006, p. 305).

Ontario's faculties of education are currently undergoing substantive changes to their program content, structure and duration. We are on the cusp of change, as each faculty of education must consider the role they will play as agents of change within this process. As two members of a faculty in the throes of examining this issue, we believe that the admission process, more specifically the admission interview, may be one factor that warrants further examination. Consequently, the broad intent of this paper is to: *consider the past; examine the present; and imagine the future* of teacher education. To do so, we will: (1) provide a historical overview of the admission practices at one Ontario faculty of education; (2) review current research on admission criteria into pre-service teacher education programs, as well as admission interviews across other disciplines; (3) reconsider the admission interview process in light of the existing and related research; and (4) present questions for future consideration that have emerged as a result of this work.

### Historical Overview: One Faculty of Education

In this section, we provide a historical overview of one Ontario faculty of education's admission practices, specifically the inclusion of an interview as a key component of the selection process.

In 2003, as a new pre-service teacher education program and university, faculty members were extensively involved in all aspects of program development and implementation. For example, as small team of faculty, we undertook the substantial task of establishing program policies and procedures; as well as developing and implementing all courses, coursework, and assessments. At the same time, we assumed the task of creating a practicum program including its structure, policies, handbook, and assessment tools; and establishing school board partnerships. However, prior to the arrival of all faculty members, the university's registrar's office developed the admission criteria and coordinated procedures for the inaugural cohort of students entering the new university. Consequently, during the first year of the program, we sought to actively contribute to the admission criteria and processes for subsequent cohorts of students.

As we began to review the admission policies and procedures, we discussed enhancing the admission process by including an alternative component to address the non-academic attributes one might desire in a teacher. We agreed to include an admission interview as a component of the selection criteria for the second cohort of students (2004-2005). Interestingly, in 2008, Crocker and Dibbon's review of 40 Canadian teacher education programs reported 68% of our colleagues at other faculties of education considered the admission interview a desirable selection criterion; however, very few faculties include it as in the selection process.

Upon agreeing to include an interview in the admission process, we began reviewing relevant research literature and consulting with our community partners. Through this process, we agreed to adopt a structured interview protocol (Baker & Spier, 1990). As a small, recently established university (student population ~ 1000), we were able to collaborate with the university administration (e.g., the registrar's office) to expedite the implementation of the organizational and procedural elements of the admission interview process. This labour-intensive process was only possible, however, with the support and assistance of our community partners (i.e., school boards, school administrators, and teachers). Consequently, our community partners became key participants in the admissions selection process.

### **Initial Protocol**

The initial admission interview was implemented for the second cohort of students (2004-2005). The interview protocol required the addition of components to supplement the initial application documentation requirements (e.g., university transcripts, reference letters, experience profile, statement of intent, and evidence of oral and written proficiency in English). Specifically, the admission interview protocol required the addition of a timed written case study analysis (described briefly in the subsequent section), followed by a structured interview conducted by pairs of trained interviewers.

A structured interview is described in this paper as an interview with a structured and standard protocol, that incorporates a standard set of pre-determined interview questions (with clear assessment criteria) that must be addressed within a specified amount of time. Interviewers consisted of volunteer school administrators, teachers, faculty, and registrar's office staff. All interviewers attended training sessions to enhance consistency in processes and assessment. Teacher candidates enrolled in the program (2004-2005) assisted in the process by

welcoming applicants, and performing organizational and administrative tasks. The interviews occurred in the evenings, over the course of two weeks.

### **Evolved Protocol**

This section describes the admission protocols from the second year (2005 – 2006) until the final year of implementation (2012 – 2013). The protocols are detailed on the UOIT Faculty of Education website (UOIT, 2013) and the Teacher Education Application Service (Ontario Universities' Application Centre, 2012). During this time period, the admission process included three components: 1) initial documentation requirements; 2) supplementary requirements; and 3) the interview. Although, the focus of this paper is the latter, to provide context, the first two components are summarized briefly.

#### ***Initial documentation requirements***

The initial documentation requirements included an undergraduate degree (with a preference to applicants with four-year honours) from a recognized university meeting a minimum overall academic average, and if applicable, the degree required teachable subject requirements. In addition to the academic requirements, if the candidate's first language was not English, then English language proficiency documentation was required.

#### ***Supplementary requirements***

Supplementary materials included:

- a personal statement / essay detailing the applicant's rationale for becoming a teacher;
- an experience profile summarizing teaching-related experiences; and
- verification of contact information of two references that could confirm the validity of the information in the experience profile.

#### ***The interview process***

Applicants, who successfully met the criteria of the first two components of the process, were invited to visit campus to attend the admission-interview weekend. At this time, applicants completed the written case study analysis and the face-to-face interview. Upon arrival to the campus, current teacher candidates greeted the applicants, and directed them into an open area where the applicants could interact with both current students and faculty. In small group settings, candidates individually completed a timed and individual case study analysis, which consisted of a broad classroom vignette. Accommodations, such as a scribe or additional time, were provided if the applicant informed the university in advance, and provided appropriate documentation. In addition, candidates who needed to travel long distances were eligible for a phone interview.

Upon completing the written case study analysis, the candidates participated in a face-to-face structured interview. The interviews were conducted by school administrators and associate / field placement teachers from partner school boards. During the timed interview, pairs of interviewers asked a standard set of questions, some of which were based on the case study, as well as additional questions to ascertain the interviewee's potential for teaching. Interviewers then independently scored the interviewee using a rubric.

## **The Dilemma**

For nine years (2004 - 2013), our faculty expended tremendous efforts and resources to implement the above described pre-service teacher education admission interview. The overarching purpose of the admission interview was to recruit candidates most suitable for a pre-service teacher education program by attempting to assess non-cognitive attributes one might desire in a teacher.

Our dilemma is this: as faculty members who teach in the pre-service teacher education program, we occasionally encounter students who struggle with the coursework, field experience / practicum, and the program in general. Although the numbers of such struggling individuals are few, we contemplate how an admission interview process, with the intention of selecting “appropriate” candidates, failed to serve both the unsuccessful individuals as well as the program. Consequently, if the admission interview process admitted individuals who were not successful in the program, then ostensibly the admission interview process may have rejected individuals who could have flourished in the program, and as teachers.

As two members of an Ontario faculty of education in the midst of examining significant changes in our program, we believe that the admission process, more specifically the admission interview, may be one factor that warrants further examination. As such, we consider the dilemma of how to select candidates with the greatest potential and commitment to teaching, and reconsider our abandoned admission interview as a means for serving this purpose. As we contemplate this dilemma, we consult the literature specific to admission criteria into faculties of education as well as admissions interviews for academic and non-academic purposes.

## **Review of the Literature**

### ***Admission Criteria: A Canadian Teacher Education Context***

In their review of 40 pre-service Canadian teacher education programs, Crocker and Dibbon (2008) identified the most common admission requirements included a combination of academic and non-academic criteria. Examples of academic criteria included undergraduate grade point averages (GPA), and depending upon the program, specific course prerequisites. Non-academic admission criteria included work experience, profile statements/essays, references, and much less common, a personal interview. Crocker and Dibbon (2008) attributed the rare occurrence of the admission interviews to their “labour intensity” and current research is “mixed ... on their reliability for admission criteria” (p. 29).

Given its paucity in Canadian faculties of education, literature focusing specifically on the admission interview process within pre-service teacher education programs is scarce. As such, we consider a small body of research regarding admission criteria for pre-service teacher education in general. After comparing selection criteria to student success in the pre-service teacher education program, Kosnik, Brown, and Beck (2005) concluded that the selection criteria used in their teacher education program was an inadequate measure, because a “considerable number of candidates apparently not suited to teaching were still admitted” (p. 101). The authors recommended that faculties of education re-evaluate their admission criteria to ensure that it focuses on seeking evidence that the applicants possess the qualities desired “for strong teaching” (Kosnik, Brown & Beck, 2005, p.101).

This recommendation, echoed by Casey and Childs (2007, 2011), proposed that admission criteria reflect some of the knowledge, skills, and attitudes required by beginning teachers, with the understanding that some of these areas would be developed during the pre-service teacher education program. Casey and Childs (2007, 2011) further recommended that pre-service teacher education programs critically examine the underlying foundations for their admission criteria.

Although admission interviews into Canadian faculties of education are a rarity, there is some American research supporting the use of personal or group interviews as a component of the admission process. For example, Shechtman and Godfried (1993) concluded, that group interviews were an effective means for assessing decision-making skills and self-efficacy; while personal interviews (with faculty) were effective for measuring verbal and cognitive reasoning abilities. More recently, Ackley, Fallon and Brouwer (2007) recommended using admission interviews to gain insight into candidates' past experiences as a means for uncovering candidates' "desire to serve others and society" (p. 661).

In her review of exemplary pre-service teacher education programs in the United States, Darling-Hammond (2006) concluded that such "exemplary" programs invested "substantial effort in selecting candidates whom they feel have the capacity to become strong teachers" (p.305). Moreover, although each program's admission processes varied, several commonalities existed. Specifically, the programs typically required high GPAs (and test scores in some instances); essays regarding teaching, learning, and children; indicators for teaching ability and commitment; and interviews or face-to-face meetings with candidates.

Although there are some American studies exploring admission interviews into faculties of education, there is limited Canadian research regarding the specific processes and structure of the interview. As such, we turned to other fields and disciplines, as we believe that much can be learned from research conducted outside of pre-service teacher education.

### ***Admission Interviews in Other Fields and Disciplines***

To better understand the processes and structure of interviews conducted for the purposes of selecting the best candidates for a position (e.g., job interview or academic admissions interview), we focused our review of the literature on two formats: the structured interview and the multiple mini interview (MMI). In the following section, we present both formats and discuss the challenges and benefits highlighted in the literature.

#### ***The Structured Interview***

A structured interview uses a standardized structure (i.e., pre-determined questions, scoring, time limitation), and as such its reliability and validity is enhanced when compared to an unstructured interview, however, issues of reliability and validity still exist (Baker & Spier, 1990; Public Service Commission of Canada, 2009). For example, even in highly structured interviews, Blouin (2010) found that the inter-rater reliability of a structured interview for an Emergency Medicine residency program was suboptimal, suggesting that "despite the highly structured format of the interview, subjective elements still get incorporated in the rating" (p. 248). This is consistent with the previous findings of Kreiter, Yin, Solow, and Brennan (2004) and Salvatori (2001) who also found weak inter-rater reliability in other medical school admission interviews.

In their meta-analysis investigating the validity of employment interviews, McDaniel, Whetzel, Schmidt, and Maurer (1994) found that the validity of an interview was influenced by the content (job-related/employment, situational, psychological) and by the manner in which it was implemented (structured, unstructured, multiple raters/interviewers, single rater / interviewer). They concluded that situational interviews (interviews that address how an individual would respond to a particular situation) had higher validity than job-related or employment interviews (focus on past behaviours and information related to the job). McDaniel et al (1994) also found that structured interviews had higher validity than unstructured interviews.

Baker and Spier (1990) developed a comprehensive list of “guideposts” (p. 87) differentiating a structured interview from its unstructured counterpart. The guideposts include suggestions to enhance the reliability and validity of the interview process. Examples of their suggestions included increasing the structure of the interview to enhance the reliability, train interviewers to reduce rating errors, and focus the interview on dimensions of the job.

### ***The Multiple Mini Interview (MMI)***

The structured interview is a common admission criteria for medical schools worldwide for assessing candidates’ non-cognitive qualities, however, research indicates that traditional structured admission interviews “weakly predict academic performance” and have only a “modest capacity in predicting clinical performance” (Goho & Blackman, 2006, p. 399). In spite of similar findings from other studies (Eva, Rosenfeld, Reiter, & Norman, 2004a, 2004b; Lemay, Lockyer, Collin, & Brownell, 2007, Stansfield & Kreiter, 2007), traditional structured interviews are common-place and continue to be highly valued by medical school admission committees.

In 2002, faculty at the Michael G. DeGroot School of Medicine at McMaster University (Hamilton, Ontario, Canada) pioneered a new vision for the admission interview: the Multiple Mini Interview (MMI). The MMI protocols were developed in response to the research citing flaws and inequities inherent in the structured interview process, and complaints from patients regarding physicians’ poor interpersonal skills, professionalism and ethical/moral judgment. Similar to the structured admissions interview, the MMI protocol was designed to assess non-cognitive qualities, including candidates’ ability “to think on their feet, critically appraise information, communicate their ideas, and demonstrate that they have thought about some of the issues that are important to the medical profession” (Trinh & Edge, 2012, p.5). Unlike the structured interview, the MMI consists of a series of short (approximately 6 - 8 minutes) interview stations (approximately 6 - 9 stations); each located in a separate room and supervised by two interviewers. At each station, the candidates are presented with a real-life scenario, and they are asked to discuss the specific issues with the interviewers. The interviewers rate the candidate’s overall performance at each station, which results in approximately 12 - 16 independent interviewer ratings for each candidate.

The MMI served as a valid and reliable tool for assessing non-cognitive skills (Eva, Rosenfeld, Reiter, & Norman, 2004a, 2004b; Eva, Reiter, Rosenfeld, Trinh, Wood, & Norman, 2012; Lemay, Lockyer, Collin, & Brownell, 2007), as well as a “fairer and more defensible assessment of applicants to medical school than the traditional interview” (Lemay, Lockyer, Collin & Brownell, 2007, p. 573). Specifically, the MMI was the best predictor of clinical /

ethical / interpersonal skill-oriented outcomes while GPA was the most consistent predictor of performance on knowledge oriented outcome such as content-based examinations (Eva, Reiter, Rosenfeld, Trinh, Wood & Norman, 2012; Eva, Rosenfeld, Reiter & Norman, 2004b). These findings highlight the importance of obtaining a balanced view of each candidate's knowledge, skills and experiences during the admissions process.

Since its inception in 2004, the MMI has been used for candidate selection at medical schools across Canada, Australia, the United States, England, the Middle East, the Far East, and Israel. The MMI has also been adopted for admissions by other disciplines, including: schools of pharmacy, physiotherapy, occupational therapy, midwifery, dentistry, dental hygiene, and veterinary medicine (ProFitHR Candidate Assessment System, 2012).

### **Reconsidering the Admission Interview Process**

In light of the existing and related research, we now re-examine our faculty's admission interview process. After considering the related literature, our previous admission interview protocol seems to align with the structured interview protocol (Public Service Commission of Canada, 2009) as we attempted to standardize the process and structure of the interview (i.e., standard questions, scoring, multiple raters, training of interviewers). Although research indicates that structured interviews are more reliable than unstructured interviews (McDaniel et al, 1994), without additional research, we are unable to ascertain the reliability and validity of our admission interview process.

For example, as previously described, our timed admission interview consisted of a face-to-face structured interview conducted by school administrators and associate / field placement teachers from our partner school boards. We presume the structured aspect of the interview (i.e., standard length, questions, scoring rubric) enhanced the reliability of the interview process (Baker & Spier, 1990; Public Service Commission of Canada, 2009); however, we have not determined the extent to which the interviewers adhered to the questions and the process. Moreover, the faculty also provided training for the interviewers specific to issues related to the administration of the interview, which are characteristic of structured interviews (i.e., protocols for consistency in questioning, scoring, and note-taking processes). These administrative guidelines enhance the reliability of the interview process (Public Service Commission of Canada, 2009). In spite of this training, the extent to which these protocols were implemented is unknown.

Beyond the interview structure and training, the admission interview questions also require additional research. For example, although the content of the interview questions were based on both the case study scenario and the candidate's past behaviours and experiences, or situational content and job-related/employment content (McDaniel et al, 1994), the interview presumably focused chiefly on the latter, which as noted (*ibid*) is typically less reliable than the former. Based on the literature, it would be prudent for the admission interview content to be more situational in nature as described by the MMI literature (Lemay, Lockyer, Collin & Brownell, 2007) and based on the faculty's underlying vision for its graduates (Casey & Childs, 2007, 2011).

## Conclusions and Suggested Next Steps

The purpose of this paper was to examine the past admission interview practices of one faculty of education by considering its historical context for implementation, examining the research specific to admission interviews, and reconsidering the admission interview processes using related literature as a critical lens. Based on our cursory analysis, we conclude that our faculty of education's previous admission interview process appears to have included practices that somewhat enhanced its reliability and validity. However, we are yet unable to determine the degree and consistency to which the intended admission interview process was actually implemented.

What we can conclude with confidence, however, is that much work needs to be done in researching potential pre-service teacher education admission interview processes. Much like the dedicated faculty at DeGroot School of Medicine at McMaster University who sought to improve the reliability and validity of its admission interview processes to select future doctors; we must also direct such energy in selecting individuals charged with the great responsibility of working with our children and youth. We need the brightest and best people to enter the teaching profession (Vareky, 2013) during a time, as noted by Crocker and Dibbon (2008), that requires an "unprecedented range of knowledge, skills, and experiences" (p. 109).

In concluding this paper, we focus on our broad intentions, which were to: *consider the past; examine the present; and imagine the future* of teacher education. In light of the work presented, we imagine the future of teacher education by presenting the following questions for consideration: How might we re-envision the admission interview? How do we enhance the reliability of the admission interview? What other evidence-based interview processes (e.g., MMI) might we consider? Regardless of the interview protocols developed, how will we address issues of reliability and validity? How do we address issues of feasibility (i.e., time, financial, human resources)? From a broader perspective, if the ultimate goal of the admission process is to attract and admit candidates who demonstrate potential for becoming effective teachers, how do we know that our admission process achieves this goal?

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## Issues Concerning In-Service Training Program of Teachers in Cambodia: Perspective and Option

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**Abstract:** *Quality teacher contributes to improving quality education and children's learning. To this mean, various countries keep searching for flexible ways of their own contexts in providing opportunities to teachers for their professional development through in-service training programs. This paper showed that in-service training for teachers in Cambodia has not been systematized and has been provided to teachers not regularly. Then, it presented the 'desired' and the 'not-desired' in-service training programs raised by primary school teachers, based on results of a questionnaire survey. It revealed that they desired to have trainings that can contribute to their teaching and learning, such as interesting teaching methods, techniques of producing teaching materials. However, they desired not to have trainings about modern technologies because they do not have those modern materials to utilize. Finally, the paper raised four components to investigate: appropriate structure, influential policies, actionable procedures, and sustainable practice of the in-service training programs.*

**Keywords:** Cambodia, In-Service Teacher Training, Quality of Education, Teacher Quality

### Introduction

Accomplishing the education for all (EFA) goals and the millennium development goals (MDGs) so as to achieve universal primary education (UPE) has committed by international community since the 1990s. However, there remain approximately 57 million of out-of-school children (EFA GMR, Apr 2014). Children need to learn the basics at early grades, otherwise they will be unable to acquire necessary knowledge and skills in their later grades. Moreover, they will be incompetent to find a job or contribute their life to their family, their nations or any parts of the world. Ensuring that children can come to learn at school is an important task, yet providing them quality education is another effort. No one can deny that quality teacher contributes to achieving children's learning outcome and to raising the quality education system as a whole. The fragile of dealing with the acute shortage of qualified well-trained teachers is one among the most severe constraints to achieving the EFA goals and the MDGs. It noticed that the countries that emphasize on raising teacher quality and teacher status achieved a higher level in PISA 2012 results of their students (OECD, 2013; EI, 2013)

Like other countries, Cambodia, an agricultural Southeast Asian country of about fourteen million populations, has committed to reconstruct and develop the country and intended to integrate her growth regionally and internationally through Cambodia millennium development goals (CMDGs). The government of Cambodia has focused on her human resources that were lost greatly during the turmoil during the 1970s. Such this, to contribute the development, the Ministry of Education, Youth and Sports (MoEYS) has concerned regarding

the capacity of its educational personnel such as their academic background and pedagogical training experience. Furthermore, the MoEYS indicates irregularity of in-service teacher training for their sustainable professional development (MoEYS, 2014b). No country can be developed unless their populations are not well-educated. Therefore, quality schools and teachers are required to deliver quality education. In other word, quality of education requires quality teachers at its centre as an indispensable pillar.

Providing opportunities to teachers for their professional development to ensure quality of all learning activities and learning environments is likely a challenge that all countries, regardless of the level of their development, have kept on focusing. To this mean, unlike existing studies and official reports and documents; for example: Berkvens, 2009; Courtney, 2007; and Tan and Ng, 2012, which have investigated teacher education in Cambodia, but those have missed to clarify the concerns regarding in-service training for Cambodian teachers as indicated in this paper, in terms of survey participants, methods of the survey, and the contents of the survey -whose results are anticipated to be substantially useful for future teacher policy settings.

**Purpose and Objectives**

The purpose of this paper is to examine issues concerning in-service training program of teachers in Cambodia, where experienced civil war during the 1970s and the budget are tight. Nonetheless, in-service training for teachers is indispensable for their professional development opportunity. To this extent, one hypothesis emerged in this study, namely: what kinds of in-service training programs do Cambodian teachers find appropriate? To clarify, more specifically, two objectives are designed: (1) to address teachers’ perspectives regarding: (a) the “desired” in-service training programs and (b) the “not-desired” in-service training programs, and (2) to further discuss implications and options for policy makers for future efficient, effective, applicable in-service training programs within Cambodia’s national educational context.

**Materials and Methods**

The survey instrument was author’s self development questionnaire which was designed based on related literature and official documents which were originally written in English, Japanese, and Khmer language. Such this, the author decided to organize it in English, and then translated to Khmer language in order for distributing to respondents. This survey was conducted in August 2012 targeted to a line of educational personnel, from local school teachers to central level officials, in Cambodia. 230 copies were distributed and a total of 173 respondents’ copies were collected, resulting in a response rate of 75.22% (see Table 1).

**Table 1: Number of Respondents by Entity (N= 173)**

Respondents by entity	No	Respondents by entity	No
Nursery school teacher	1	District education official	52
Primary school teacher	48	Provincial education official	20
Lower secondary teacher	6	Central official	11
Upper secondary teacher	7	Researcher	1
University instructor	6	Others (Unknown)	3
Trainers of three various Teacher Training Centers (TTCs): Pre-School TTC in Phnom Penh, Provincial TTC in Svay Rieng province & Regional TTC in Prey Veng province			18

Among these, nine copies were distributed to and collected from some educational staff who

came from different provinces of Cambodia to stay at teacher's guesthouse in Phnom Penh for a short period for work. All the respondents and responses are kept anonymous and confidential. However, the author notices that the majority of respondents experienced working for any level of school education. In this paper, the author extracts only one section from the whole questionnaire: Suggestion for In-Service Teacher Training Program. This section contributes to the two parts that reply to the two objectives as stated earlier and is the main focus in this paper, but not absolutely because some small related parts of the other sections are also utilized at where necessary.

The section below first provides an overview on the in-service teacher training of Cambodia and then presents the empirical results of the study.

### **Overview on In-service Teacher Training of Cambodia**

Education has played an important role in Cambodian society in maintaining social structure and forming social values. In the past decades, the priest of Buddhism had a role as the teacher to preach Cambodian citizens about social norms. Teacher had been respected by people surrounding and of high status in Cambodian society. However, it is shown that approximately 80 per cent of Cambodian elite, no exception for teacher or monks, were killed during the civil war in the 1970s due to political, ideological control (Phin, 2013; Yabe, 2009).. When the peace came to Cambodia in the 1980s, it is noticed that Cambodia was facing the lack of competent human resources, especially competent teachers to rehabilitate their role in educating children and in developing Cambodian society as a whole.

Up to the present, teacher competence and teacher quality have been focused by researchers, policy makers of the Cambodian government, and relevant development partners with the MoEYS of Cambodia. Through concerned study, it is shown that Cambodian teachers today realize and indicate explicitly that competent teachers do help contribute to students' learning achievement and to elevate the level of education quality (Phin, 2014a), which is the significant role that exists Cambodian society over the centuries. Moreover, they recognize the importance of in-service training program because it helps teachers to upgrade their capacity, their professional skills, the teaching methods, and to get confident in the profession as it can bring people's respect and trust (Phin, 2014a).

Yet, the in-service training for teachers has not been systematized and has been provided to teachers irregularly. It happens just once in a while (Phin, 2014b), perhaps only when there is a fund from donor countries or probably because of the weakness in Cambodia's education administration itself. In order to contribute to Cambodia's future human and social development, teachers require being well-trained. Educational development faces severe challenges due to acute shortage of qualified teachers. The MoEYS addresses some concerns regarding teachers having no experience in pedagogical training, low academic background such as primary school graduates or even not finished primary level. Few educational officials are PhD holders (MoEYS, 2012). According to the information of the International Reading Association (2008:31) on "Status of Teacher Education in the Asia-Pacific Region," the continuous in-service program in Cambodia is conducted to the targeted group of the current teaching service, particularly teachers of basic education levels. It further shows that the management training program is to focus on school directors and intend to extend to education managers at all levels. This information tells insufficiency in providing the training programs to all teachers within the

country. Realizing the significance of the in-service training program for Cambodian teachers, the authors sought to reveal the characteristics of in-service training programs delivered to Cambodian teachers, as results of a section of the questionnaire survey presented in Phin, 2014b. The article investigated seven crucial headings: (a) the training topics delivered to Cambodian teachers within the past three years, (b) the place of receiving the training program, (c) the duration of each training program, (d) the allowance teachers received, (e) the supporters of each training program, (f) the respondents' perceptions regarding the level of usefulness of each training program, and (g) the respondents' awareness whether or not in-service teacher training program is significant for their professional development.

Hence, the current paper intends to continue to examine the 'desired' and the 'not-desired' in-service training programs raised by respondents in another section of the questionnaires, anticipating to clarify the training needs of teachers that are substantially useful for future teacher policy making in setting the applicable in-service teacher training programs. The empirical results of the study can be presented in below section.

## **Results and Discussions**

The present study has separated the 173 respondents by their entities as shown in Table 1. In this section of the questionnaire presented in this paper, the authors have examined the results based on their entities. 206 desired training topics were raised by the respondents: 51 topics raised by primary school teachers, 3 topics by lower secondary school teachers, 5 topics by upper secondary school teachers, 4 topics by university lecturers, 62 topics by district education officials, 26 topics by provincial education officials, 20 topics by central officials, 30 topics by teacher trainers of the TTCs, and 3 topics by the unique researcher. The authors had encouraged the respondents to provide the reasons why they desired those training topics. As a result, besides the 12 topics which were indicated without reasons, the survey obtained 194 reasons presenting the grounds of the respondents' decision. As such, in this paper, the authors present and discuss the case of primary school teachers only; these are presented in Tables 2 and 3 below as (a) the 'desired' in-service training programs and (b) the 'not-desired' in-service training programs respectively. The rest of the results of other respondents will be presented in a future paper.

### **(a) The "desired" in-service training programs**

In this section of the questionnaire, 42 out of the total 48 primary school teachers have filled in resulting in 51 desired training programs indicating with the reasons why they desired. The authors notice that the primary school teachers need more training programs about teaching technique or teaching method, following by technique of producing teaching materials. Moreover, they wished to learn about teacher's role, teacher standard, and quality of education as well. The authors sum up the repeated topics and combined them as presented in Table 2.

Looking through the reasons they provided, we notice that the primary school teachers of Cambodia have attempts to get involved in their teaching profession who want to work responsibly for the sake of contributing not only to the quality of their teaching career, to their students' learning achievement, but also to improving the quality of the whole education system. As Cambodia is an agricultural country, it is shown that primary school teachers want to be trained on agriculture for obtaining more obvious knowledge and skills for sharing to their students and perhaps for sharing also to their neighbored populations to contribute to their daily livings.

(b) The “not-desired” in-service training programs

Like previous section, the authors encouraged respondents to provide the ‘not-desired’ in-service training programs and encouraged them to indicate why they do not desire. As results, for the case of primary school teachers, we obtained 14 not-desired training topics following with the reasons. We noticed that some topics were similar or almost the same with other respondents within this primary school entity. After summing up the repeated topics, the results can be combined as presented in Table 3.

We have wondered why they do not desire to have these training topics. For the case of primary school teachers, they do not need training programs that are less useful in their career. Table 3 presents challenges in in-service training programs for primary school teachers; which are because of the limited resources in education such as electricity and other necessary educational materials, boring poorly-organized trainings or probably because of the limited competence of teachers themselves to understand the training.

**Table 2: The ‘desired’ training programs raised by primary school teachers**

The ‘desired’ training programs	Reasons
Role/duty of teacher	To work responsively.
Teacher standard	For teachers to do activity efficiently and get good results.
Teaching technique or Teaching method	To fill more methods to teach better for easier understanding; To teach more effectively and qualitatively; To use in teaching/learning to develop knowledge to students more successfully, etc.
Technique of producing teaching materials	To bring it to use when teaching; To have enough teaching materials; To get to know about how to produce and how to use; and to make teaching and learning joyful, etc.
How to help late learning students	To encourage them want to study and try to study.
Teaching techniques used for new curriculum	To develop teacher capacity; To improve teacher's professional skills and improve the quality of Cambodian education as a whole.
New technique on how to manage classroom	For using effectively during teaching students.
Management	To strengthen effective management in classroom and school.
Child rights	To get to know about children and help them to avoid punishments.
Developmental technique	To implement at each grade and to help the growth of kids.
Technical meeting and workshop	To organize syllabus because core guidebook has changed so often
Technical knowledge	To mainstream and teach it to students confidently.
Methods of how to control step of teaching of short lesson	To manage how to implement accurately as scheduled
Agriculture	To allow students to learn how to plant and look after the crops
Information Technology (IT)	For self-development and work in the changing world.
Build workshop at school	For students to get involved in carpentry and carving, etc.
Improving environment	Because good environment makes students want to study happily.
Quality of education	Students deserve to acquire quality knowledge, good morality, good communication, and necessary skills for their future.

Having seen some issues in in-service training programs of teachers in Cambodia, efficient policy options for effective solutions are the focus for discussion. Dilemma in in-service

teacher training program relates with the sustainability of implementations in order to provide more opportunities to teachers for their continuous professional development. Cambodia has addressed its hardship due to the shortage of budget in education and insufficient necessary materials to education or out-of-date sources (Dunnet, 1993). Simultaneously, she intends to integrate herself with neighboring nations or regional nations, and global nations. In the recent published official documents of the Ministry of Education, Youth and Sport (MoEYS), there raised achievements in education sector, while many challenges have also been addressed to call for supports and financial aids (MoEYS, 2014b and 2014c). More specifically, in-service teacher training for Cambodian teachers has not been systematized, as presented in MoEYS 2010 and 2013 and as clarified in Phin 2014b. Cambodia attempts to improve the quality of education with other ASEAN countries, lifting the level of the development in response to the ASEAN community standard (SEAMEO, 2008, 2010 and 2013).

**Table 3: The ‘not-desired’ training programs raised by primary school teachers**

The ‘not-desired’ training programs	Reason
Techniques of different majors	Because it is difficult to understand or distribute to somebody.
Repeated training topics	Teacher gets bored with the same topics in several training programs.
Using slide	Unable to use due to no electricity connected at our school.
Usage of question collection	Teacher can make it already.
Unimportant topics	It wastes the time.
Topics that not used in education	It does not contribute to students' learning achievements and it may cause the quality of education weaker and weaker.
Techniques of advanced countries	Because we do not have tools to use at our school.
Producing teaching materials	Difficult to produce because of shortage of materials

However, although Cambodian teachers are willing to take part in upgrading their capacity, in contributing the students’ learning achievements, and in elevating the quality of education; Cambodian teachers are overcoming with the irregular in-service training where the budget are tight for making it happen and where the training topics seem irrelevant to what they want or what they can do or seem far from Cambodia’s context, as results presented by primary school teachers in the survey of the present paper. Providing regular in-service training for teacher professional development is a significant task that all countries, regardless of the stage of development, cannot put it away from focusing (OECD, 1998 & UNESCO; 1998 and 2006). Integrating ICT into teacher education has been introduced to Cambodia, as seen in the results of the ‘not-desired’ training raised by primary school teachers in this paper, while Cambodia teachers are unable to use it at their school due to their limited capacity in ICT literacy and due to the shortage of the modern tools at their workplace. Somehow, it is noticeable that this integration of ICT has been introduced to many countries in the world for the wake of technology in the 21<sup>st</sup> century (UNESCO, 2013). Doubtfully, developing countries like Cambodia and other developing countries face severe challenges to reach the point where developed countries have already done today, for example: in terms of acute shortage of competent teachers to educate their children to become skilful workers for the generation to come. Thus, finding the appropriate option of solution for coping up with the issues in in-service training program for teachers in Cambodia may be addressed accordingly. The present paper has revealed that Cambodian primary school teachers firmly recognize the importance of their teaching and intend strongly to have opportunities to participate in more in-service training

programs. All above, the actionable option is to make a clear plan in clearer education goals within Cambodia's educational background and context, supporting from responsible policy makers or administrative educational officials and from relevant donor countries regarding the effective use of their experts and budget; otherwise in-service training program cannot be implemented sustainably or effectively.

### **Conclusions and Recommendations**

The present paper described issues concerning in-service training program of teachers in Cambodia, where experienced civil war during the 1970s that destroyed the tremendous amount of its elite populations and educational infrastructure, and where the budget are still tight for the development. The paper presented the challenges of Cambodian teachers who have no experience in any pedagogical training, while some teachers are primary school graduates or even not finished primary school; although few educational officials are PhD holders. On the other hand, in-service teacher training itself is not systematized and has been provided to teachers not regularly. Cambodian teachers realized the importance of teacher competence in contributing to students' learning achievement, to raise the level of quality education, and to contribute to human and social development. They indicated the significance of regular in-service teacher training for their continuous professional development in the changing world. This paper presented the 'desired' and the 'not-desired' in-service training programs raised by primary school teachers, as the results of a section of the questionnaire survey. For the case of primary school teachers, they desired to have trainings that can contribute to their teaching and learning, such as about interesting teaching methods, techniques of producing teaching materials, management, and so on for the sake of improving the quality of teaching and learning as well as for the advancement of education sector and society development as a whole. However, they desired not to have trainings about modern technologies, techniques used in advanced countries, and so on because they do not have those modern materials at their schools and so do the modern techniques which are seemingly not applicable in their school conditions where there is no electricity connected, etc.

Thus, providing regular in-service training to teachers is an urgent task, while making it appropriate and applicable for Cambodian school context and conditions is another crucial work. Having seen the results presented in the present paper, policy makers of the Cambodian government as well as development partners will find them useful for future applicable in-service training for Cambodian teachers. At the time of making policy, policy makers and development partners are usually affected by globalization. However, each country can participate in only its own context, while sometimes it can integrate itself with regional and global context. As for the case of Ontario, Canada, the teacher professional development has emerged and influenced by its policy. It has also been seemingly urged by the pressure of the regulated and prescribed curriculum (Hardy, 2012). Pressure of adopting advanced methods of developed countries into developing countries is unlikely to get acceptable results. Nonetheless, efforts to improve teacher's professional development can be made by teachers themselves, by sharing with their colleagues within the school, and also by involving in activities out of school (Kubota, 2013). In addition to enacting compulsory in-service training, helpful support to build up creative environments for learning and teacher professional development is preferred.

All above, through the results and discussions presented in this paper, it is recommended to make clear aims in education as well as in in-service training programs for teachers. For future

efficient and effective plan, in accordance with the availability of human and material resources and context, it is encouraged to conduct a critical investigation regarding: (i) appropriate structure, (ii) influential policies, (iii) actionable procedures, and (iv) sustainable practice of the in-service training programs. The four components shall happen if teachers themselves discuss with their colleagues within the school to find applicable programs, without interventions from outsiders. Likewise, relevant administrative authorities and education officials have a responsibility to support and participate accordingly to help schools and teachers work more smoothly. However, developing countries cannot move faster without aids and support from development partners or donor countries. They are, thus, appreciated providing funds and supports to the right places of demanding in order for the quality investment in education.

**Note:** The present paper described only the case of primary school teachers in Cambodia. For future study, there needs to examine the rest of results raised by other respondents' entity and another dataset obtained from the survey conducted in Nov-Dec 2013 with 189 primary school teachers by using the same questionnaires. Moreover, the future examinations need to address respondents' demographic background for critical analysis.

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## A Poetic Response to Policy Layering, Intensification, and the De-Skilling of Teachers

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**Abstract:** *For several decades, the literature has documented ways in which teachers have been subject to declines in professional autonomy resulting from intensification. In Ontario, intensification has arisen from neo-liberal education reform mandating of multi-layered educational policy affecting teachers in their daily lesson planning. To make sense of the proliferation of policy, this project applied arts-based research. Teacher candidates collectively composed a poetic response that allowed them to reflect on how this shapes their work as incumbent professionals, underscoring the role of educational politics in intensification and de-skilling of teachers. Using the poem created by teacher candidates as data, this paper analyzes implicit implications that were given voice by the creative expression afforded by poetry.*

**Keywords:** Education politics, Education policy, Arts-based research

### Introduction

Historically, teachers have been responsible for negotiating many and often competing demands in the course of their work. For several decades, the literature has documented ways in which teachers have been subject to declines in professional autonomy resulting from intensification (Apple, 2008; Ball, 2003; Ballet & Kelchtermans, 2009; Gitlin, 2001; Hargreaves, 1994; Honan, 1994), often arising out of large-scale education reform. Beginning in the 1990s, neo-liberal ideologies have driven education reforms in a variety of jurisdictions, most notably the United States, the United Kingdom and Canada (see, for example, Apple, 2005; Hill, 2003, Taylor, 2001; Wrigley, 2003). These reforms embody:

a shift away from the more humanistic and egalitarian social democratic political ideology that had dominated most of the 1960s and 1970s to the more utilitarian political ideology [one] which signaled a return to market forces, individual responsibility and economic freedom (Carr and Hartnett, 1996, p. 20).

This ideological shift, Carr and Hartnett (1996) argue, changes what “educational problems” are recognized as needing change and legitimizes certain policy solutions. Often, these solutions contribute to intensification of teachers’ work through accountability mandates and highly-prescriptive policy (Ball, 2003).

This paper explores policy layering as a product of neo-liberal reform in Ontario, Canada relates to intensification and the deskilling of teachers. The phenomenon is presented through a collective poetic response, with discussion of its implications in the broader context. The use of this arts-based research method illustrates ways in which preservice teachers experience the phenomenon of policy, and exposes problematic aspects of the structure and nature of education policy in the province of Ontario based on their perspectives.

## **Context: Education Reform in Ontario and Resulting Myopic Policy Layers**

Educational reform has been a constant in Ontario since the beginning of the twentieth century (Gidney, 1999). Upon the election of a Progressive-Conservative government in 1996 and continuing to the present day, the Ontario Ministry of Education introduced a number of education policy initiatives under the auspices of improving increased accountability. Especially salient to this paper was the move to highly prescriptive, centralized policy.

These greater accountability measures in education were a direct result of the framing of education as a “business” in which parents and students were “consumers” (Snobelen, 1995, p. A29). “Customers,” the newly-elected Minister of Education John Snobelen explained in 1995, were complaining about the current state of the education system, and changes had to be made to remedy those complaints. The Minister went on to call for increased accountability for teachers, whom he defined as “front-line service providers.” In recognition of the fact that his plan would encounter resistance, he stated:

Now, if front-line service providers are placed at the top of the organization chart, it isn't all happiness and roses. It means increased responsibility and increased accountability. And increased accountability means you cannot hide... Change is rarely well-received by the status quo. It tears at the heart of a fiction we call security (Snobelen, 1995, p. A29).

Note the language used by the Minister – “organizational chart”, “front-line service providers”, “you cannot hide”, “the fiction we call security”. These words indicate underlying values that prioritize business ideals (keeping the customer happy, surveillance of workers and alluding to job security as a fiction). This was part of a larger neoliberal discourse that permeated Ontario at the time, and continues to this day. The collective result of neo-liberal educational policy redefines the teaching profession:

What is important to note is that the deskilling of teachers appears to go hand-in-hand with the increasing adoption of management type pedagogies. . . . The growing removal of curriculum development and analysis from the hands of teachers is related to the ways technocratic rationality [i.e., separation of political and moral issues from seemingly technical concerns] is used to redefine teachers' work. This type of rationality increasingly takes place within a social division of labor in which the thinking is removed from implementation and the model of the teacher becomes that of a technician or white collar clerk. (Giroux & McLaren, 1996, pp. 307-308)

Key education reform initiated in Ontario during the 1990s included the introduction high-stakes testing; secondary school reform (SSR) that included the elimination of the fifth year of high school, reduced the number of secondary school courses from 1400 to 200, enacted an outcomes-based curriculum with highly prescriptive policy documents and more standardized graduation requirements, cut to school district operating budgets with a new, provincially-centralized finance structure. In addition, teachers working conditions were changed: less preparation time, a longer school year, fewer professional development days, and changes to class size. Teacher regulation was also enhanced with the establishment of the Ontario College of Teachers (OCT). The election of a Liberal government in 2003 resulted in some policy changes to education – though the majority of these were superficial such that both intensification and further de-skilling continued with new education policy documents layered onto the previous ones.

Ontario's core curriculum policy consists of outcomes-based policy documents issued by the Ministry of Education, who acts autonomously to set education policy. For each secondary school course, teachers are provided between 70 and 130 student learning outcomes that they are accountable to assess. On its own, accounting for the core curriculum policy outcomes is a significant administrative undertaking. Since the election of the Liberal party government in 2003, the Ministry of Education has on numerous occasions released add-on curriculum policy documents that addressed timely issues without having to revise or re-issue core curriculum. Until now, these have remained undocumented in the scholarly literature. The following policy documents have been issued in response to various political issues:

- *Growing Success: Assessment, Evaluation and Reporting in Ontario Schools* was released in 2010 to replace a number of previous policy documents (*Program Planning and Assessment*, 2000; *Guidelines for Assessment, Evaluation and Reporting*, 2003; *Guide to the Provincial Report Card, Grades 1–8*, 2000 and *Grades 9–12*, 1999). As its title implies, this policy governs all assessment, evaluation and reporting practice through highly prescriptive requirements.
- *Financial Literacy, Grades 4-8: Scope and Sequence of Expectations* and *Financial Literacy, Grades 9–12: Scope and Sequence of Expectations* released in 2011 in response to the *Report of the Working Group on Financial Literacy*.
- *Ontario's Equity and Inclusive Education Strategy* released in 2009.
- *Acting Today, Shaping Tomorrow: A Policy Framework for Environmental Education in Ontario Schools* (2009) and its companion, *Ready, Set, Green! Tips, Techniques and Resources from Ontario Educators*.
- *Many Roots, Many Voices: Supporting English Language Learners in Every Classroom*, released in 2006 in response to a political commitment to the environment.
- *Character Development Framework Document* and its companion *Finding Common Ground: Character Development in Ontario Schools, K-12* released in 2008 in response to emphasis on schools to provide character education.
- *Daily Physical Activity in Schools: Guide for School Boards* released in 2006 in response to political pressure to address issues of nutrition and childhood obesity.
- *Making Ontario Schools Healthier Places to Learn* released in 2004 in response to political pressure to address issues of nutrition and childhood obesity.
- *Me Read? No Way! A Practical Guide to Improving Boys' Literacy Skills* released in 2004 in response to reports of boys' under-performance on standardized literacy tests.

These policy documents are *not* considered part of the core curriculum, but exist as measures to address specific issues with the expectation that teachers will incorporate them into lesson planning and daily instructional activity. The degree to which schools, boards and teachers incorporate these documents into classrooms remains unknown, though research conducted with administrators suggests that at the school level, teachers are held to account on a variety of measures related to curriculum, where principals define “student performance based on Ministry prescribed standards, indicators, and targets for student academic learning outcomes as a dominant frame to define the agenda for student learning” (Anderson & Macri, 2009, p. 201). As such, the layering of both legislation and education policy contribute to intensification of teachers' labour processes through encroachment of technical control in the form of management systems and reductive and prescriptive curriculum (Apple, 2008).

### **Theoretical Framework: Policy Layering as Intensification**

In a general sense, intensification refers to profound changes in the form of increases, either in time or in workload within a given job (Apple, 2008; Ball, 2003; Ballet & Kelchtermans, 2009). Intensification has two connections: more of the same work, or signification of different work tasks being added to the teacher's day, such as record-keeping and administration of curriculum (Easthope & Easthope, 2000). Intensification within schools is characterized by the following features (Hargreaves, 1994):

- a perceived lack of time;
- the creation of chronic and persistent work overload;
- replacing time spent caring for students with time meeting administrative demands;
- the enforced diversification of expertise; and
- the production of packaged curricula and packaged pedagogy.

My concern in this paper is the proliferation of policy texts as regulatory mechanisms that increase state control over teachers (Honan, 1994), while reducing autonomy in a way that de-skills the profession. If, as Honan (1994, p. 271) postulated, policy texts “‘write’ the teacher,” then attention to their scope and content is necessary to understand how they shape individuals and their work. Adhering to layered policy involves agreeing to the completion of equally lengthy and complex tasks while also complying with the regulation of the completion of them. When coupled with the “‘accountability vaccum” (Horsley, 2009, p. 6), they privilege certain classroom activity, while detracting from teachers’ autonomy to make choices and serve the needs of students.

### **Methods: Arts-Based Research**

Arts-based research is the systematic use of artistic processes or artistic expression to examine experiences (McNiff, 2008). The arts as research methods allow researchers and participants to “open doors” and “put up mirrors” because artistic expression alters conventional frameworks for re-imagination (Rolling, 2010, p. 111). Policy is rarely conceived of in terms of art – though as my research will illustrate, using policy as the basis for an artistic work sheds light on unique aspects of its impact. Poetry offers the opportunity to disrupt taken-for-granted and allows us to see things differently with an eye to change (Kinsella, 2006; Luce-Kapler, 2003), and thus was an ideal medium to engage teachers in this cognitive task.

As a teacher-educator, I challenge myself to identify ways for my class to think reflectively and critically about legislation and policy, and how it affects their work. For this project, I facilitated a collaborative artistic process in a teaching methods course at an Ontario university.

In Ontario, teachers are expected to incorporate a proliferation of policy documents and legislative mandates in their course, lesson and unit planning. Teacher candidates in a consecutive teacher education program were preparing to embark on unit and lesson planning in the course, having completed a semester of study on the social and political foundations of education, and educational law and policy. This arts-based research was a means for those individuals to reflect on their prior and current knowledge about policy, and express (through artistic means) their response to the application of policy in their lesson planning.

The collaborative enactment of this poem allowed me, as well as the teacher candidates, to reflect on the policy dimensions of teaching practice while exercising creativity and artistic expression. In order to encourage students' reflection on the vast policy and legislative requirements, I began with a class reading of the Mother Goose classic poem, "This is the house that Jack built" (Golden Books, 2008). Upon completing it, I asked the class to consider how the poem might relate to lesson and unit planning. They quickly identified a connection to the numerous and layered policy documents about which they were aware. Using chart paper to capture their ideas, we constructed a poem as a class, with teacher candidates contributing their knowledge. The class chose to follow the rhythm and style of the Mother Goose poem, and also chose to maintain Jack as the central character, despite some debate about it centred around inclusion. I organized their contributions, created a document, and redistributed their poem the following week for revision and discussion.

For the purpose of analysis, the poem was treated as the data source. Data were analyzed inductively to identify patterns, themes, and categories emerging out of the data rather than being imposed on them (Patton, 1990). As a class, we revisited the poem a number of times throughout the semester as we honed lesson planning and teaching methods. I made note of the insights raised by students, and proceeded to connect them to relevant literature, discussed in the sections that follow. The element of collaboration, along with an interpretative approach to analysis, reflect arts-based research practices that respect the artistic expression of the makers (Rolling, 2010).

### **Data Source: Collaborative Poetic Response to Policy Layers**

The resulting poem created by the class appears below.

*This is the lesson plan that Jack wrote.*

*This is the template made by the Ministry that structures the lesson plan that Jack wrote.*

*This is design-down planning  
Embedded in the template made by the Ministry  
That structures the lesson plan that Jack wrote.*

*This is curriculum policy document, all tattered and torn  
Laden with learning expectations, some forlorn  
That begins the process of design-down planning  
Embedded in the template made by the Ministry  
That structures the lesson plan that Jack wrote.*

*This is the assessment from Growing Success  
That hails from the learning expectations  
That started the process of design-down planning  
That structures the lesson plan that Jack wrote.*

*This is Ontario's Equity and Inclusive Education Strategy  
Designed to tackle discrimination, embrace diversity and improve overall achievement gaps*

*Layered over the curriculum policy document, all tattered and torn  
Laden with learning expectations, some forlorn  
That begins the process of design-down planning  
Embedded in the template made by the Ministry  
That structures the lesson plan that Jack wrote.*

*This is Finding Common Ground: Character Development in Ontario Schools, K-12  
Applied to teaching and learning in all Ontario schools  
Layered atop the Equity and Inclusive Education Strategy  
And over the curriculum policy document, all tattered and torn  
Laden with learning expectations, some forlorn  
That begins the process of design-down planning  
Embedded in the template made by the Ministry  
That structures the lesson plan that Jack wrote.*

*This is Think Literacy: Cross-Curricular Approaches and its companion Me Read: No Way! A  
Practical Guide to Improving Boys' Literacy Skills  
That anchored the lesson  
Layered atop Finding Ground, Equity and Inclusive Education Strategy  
And over the curriculum policy document, all tattered and torn  
Laden with learning expectations, some forlorn  
That begins the process of design-down planning  
Embedded in the template made by the Ministry  
That structures the lesson plan that Jack wrote.*

*This is Acting Today, Shaping Tomorrow: A Policy Framework for Environmental Education in  
Ontario Schools ironically printed on paper,  
Combined with Financial Literacy, Grades 4-12,  
That shaped the instruction  
Layered atop Think Literacy, Finding Ground, Equity and Inclusive Education Strategy  
And over the curriculum policy document, all tattered and torn  
Laden with learning expectations, some forlorn  
That begins the process of design-down planning  
Embedded in the template made by the Ministry  
That structures the lesson plan that Jack wrote.*

*This is the Education Act, RSO 1990 and the Ontario College of Teachers Act, SO 1996  
That outline Jack's duties and responsibilities as a member of the teaching profession  
That commit him to Growing Success, Financial Literacy, Acting Today, Shaping Tomorrow,  
Think Literacy, Finding Ground, Equity and Inclusive Education Strategy  
That he layers over the curriculum policy document, all tattered and torn  
Laden with learning expectations, some forlorn  
That begins Jack's process of design-down planning  
Embedded in the template made by the Ministry  
That structures the lesson plan that Jack wrote.*

### **Discussion: Problematizing Layered Prescription**

The poetic response illustrates how Ontario teachers are subject to myopic layers of prescriptive policy in their daily work. When the myriad of policy documents are coupled with neo-liberal accountability structures, intensification occurs. Giving teachers pre-specified and prescriptive “legitimate” curriculum, and mandating its adoption through accountability measures is a control apparatus of the state (Apple, 2008). As a class, we revisited the poem a number of times throughout the semester as we honed lesson planning and teaching methods. The poem was an overt reminder of professional intensification, a concept I introduced to the group. Our conversations tended to focus on two areas: workload, and regulation versus autonomy. In the paragraphs that follow, I touch on the key themes we discussed, and ground them in the literature.

The poetic response created by the class highlights aspects of increased workload arising directly from intensification. On the one hand, this work comes in the form of teachers’ attempts to become informed as new policy appears in the province. As Skerrett (2010) suggested, “community of practice and a learning community has taken on heightened importance as increasing curriculum standardisation and high stakes assessments further narrow the historically fragile opportunities for deep and collaborative teacher learning” (p. 648). In essence, teachers are expected to keep abreast of new policy, learn about it, and apply it despite an environment with less time allotted for professional development. Teachers, thus, struggle to manage to learn more with less time. Skerrett found that the brief meeting time provided to teachers was largely taken up by administrative details, leaving little time for teachers to consider various “new” policy layers for which they were responsible. Skerrett’s findings reflect the concerns voiced by teacher candidates in thinking about the policy responsibilities the Ministry of Education emphasizes.

On the other hand, teachers also must incorporate more (and sometimes contradictory) policy into their day-to-day work, leaving teachers “exhausted with having to cope with so much all at once” (Majhanovich, 2002, p. 166). Similarly, Simon, Robin, Forgette-Giroux, Charland, Noonan and Duncan (2010) documented teachers’ navigations through contradictions within Ontario’s *Growing Success* policy document. This research reflected my students’ experiences in that policy creates dilemmas in assessment and reporting faced by teachers as they attempt to make sense of the mandates. Parkinson and Stooke (2012) looked at the ways in which teachers “juggled the complex requirements of the language curriculum with other curriculum requirements” (p. 60), and my students described similar dilemmas in addressing the multitude (and sometimes conflicting) mandates across the various policy documents. Together, these data – while each small in scale – along with the experiences of teacher candidates in my class point to Ontario teachers’ struggles to learn about *and* enact layered policy in their classrooms, supporting other jurisdictional research on intensification.

In addition to these discussions about workload, regulation and autonomy was a topic of discussion in response to the poem. In its current form, the proliferation of policy layers act as a form of Taylorism (Apple, 2008), de-skilling teachers-as-workers by eliminating autonomy (Ball, 2003), and separating conception from execution. In his research, Gitlin (2001) observed how the intensity of teachers’ work related to accountability resulted in the inability for teachers to step back from their classroom practices and consider broader educational issues or look at these practices in a more holistic sense. Similarly, Apple (2008, p. 206) quoted a teacher faced

with this type of situation: I just want to get this done. I don't have time to be creative or imaginative." Ball (2003) offered similar teacher quotations, "What happened to my creativity? ...What happened to the fun in teaching and learning?" (p. 216).

In addition to the lack of professional autonomy and creativity, Honan (1994) observed that when teachers' work moves from teaching to regulation, the teacher becomes regulatory tool for the state. Policies are enforced under the guise of more effective teaching (in Ontario, the term "student success" is used), but in reality the policies do nothing more than provide a way to further govern the population and regulate individuals (Honan, 1994). Teachers become managers and discipline specialists rather than public intellectuals engaged in the caring work of learning with children (Helfenbein, 2008). As Majhanovich pointed out, "there is little room for modification or innovation, and teachers feel that their professionalism and expertise have been seriously diluted" (Majhanovich, 2002, p. 166). The results of an Ontario report on reasons for teacher attrition (Clark & Antonelli, 2009) highlighted the enormous effects of intensification. While the reasons for teacher attrition in the province are varied and complex, workload was an important factor. As one teacher in the study commented,

I could have continued to teach but the job is becoming more and more demanding and stressful. I feel that teachers are constantly being told they're not doing enough, not doing it correctly and they must go along with the next new initiative which always means many more hours of meetings, workshops, "coaching" sessions and record keeping (Clark & Antonelli, 2009, p. 44).

The discussion thus far has focused on the assumption that teachers, in fact, comply with the policy mandates. Teacher candidates offered a range of observations from their field experiences – from attitudes of compliance to attitudes of resistance among their supervising teachers. Certainly, teacher agency, subversion and resistance have been shown to lead to different interpretations of "official" policy (Berkhout & Weilmans, 1999; Honan, 1994; Levinson, Sutton & Winstead 2009; Raab, 1994; Wood, 2004). Moreover, Hyslop-Margison and Sears (2010) eloquently argued that, in fact, teachers' classroom performance is strengthened when they have professional autonomy to interpret and resist policy and dominant paradigms. Yet, Gitlin (2001) found that teachers underutilized their autonomy by precisely following mandated curriculum policy, textbooks, and prepackaged curricula, which limited their ability to act on and even transform pedagogical relations, forms of legitimate knowledge, and cultural canons. Teachers in his research adopted a batch-processing orientation to students that constrained the way student needs could be incorporated into the curriculum (Gitlin, 2011).

## **Conclusion**

Engaging in the process of expressing intensification in an artistic form allowed a group of teacher candidates to reflect on how policy shapes their work, underscoring the political aspect of teaching. As Gitlin (2001) observed, "for too long now, the working conditions of teachers have been overlooked because it is assumed that teaching is a calling, a profession where one would work and overcome school-related obstacles regardless of their nature" (p. 254). This paper called attention to the proliferation of policy and regulation facing Ontario teachers, and unpacked the implications of the layered policy environment with respect to intensification and deskilling of the profession. It was the first to document the level of policy layering in the province, and offers a historical snapshot of a unique policy moment in the province.

This paper raised a number of issues warranting further investigation. First and foremost, to what extent do practicing teachers and teacher candidates accept or resist the proliferation of policy documents in Ontario and elsewhere? Little empirical evidence exists to describe how they exercise autonomy. Further exploration of these crucial issues is necessary to understand how intensification takes shape in classrooms, and the degree to which teachers accept or resist layered education policy in an era of increased accountability. Second, various forms of analysis of policy text content would offer a perspective on the nature of the mandates, and how they might be subject to multiple interpretations. Finally, investigation into teachers' and school administrators' perceptions of the policy scope might offer insight into areas of overlap, and how educators prioritize competing and varied curriculum mandates.

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# Development of Distance Training Packages on Physical Education Activities for Enhancing Attention Span and Communication Abilities of Children with Short Attention Span

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**Abstract:** *The purposes of this research were 1) to develop distance training packages for teacher and parent on physical education activities for enhancing attention span and communication abilities of children with short attention span, and 2) to study the effects of using the packages on a) participants' achievements in organizing activities, and b) participants' opinions on physical education activities. The participants consisted of 20 teachers and parents. Series of physical education activities, achievement test, and questionnaire served as the instrument. Median, range, mean, standard deviation and sign test were used for data analysis. The findings of the research are as follows:*

- 1. The efficiency of packages was established at 80.00 / 82.13.*
- 2. The results of using the packages were the posttest average scores of achievement of participant were higher than pretest. Mean score of the opinion on physical education activities was at the highest level.*

**Keywords:** distance training packages, physical education activities, attention span, communication abilities

## Introduction

At present, children with disabilities can be found in schools and society in general. The Ministry of Education of Thailand has adopted the mainstreaming policy, that is, arranging for educable level disabled children to be in the same classroom or in the same school with normal children. This policy is aimed at integrating disabled children into the general society so that they can be productive citizens and pursue normal life. These disabled children learning in the same classroom with normal children are considered as children with short attention span.

As children with short attention span require special cares to guide them to develop properly in accordance with their specific needs, they are different from normal children. Parents, guardians, teachers and those concerned need to gain correct knowledge and understanding on providing proper cares to enhance their development. Close cooperation between the home and the school is vital to ensure that the children receive the best possible care to guide them on their development.

Regarding problems of these children, a number of studies revealed that, apart from children in the attention deficit and hyperactivity disorder (ADHD) group who directly have problems with short attention span, some disabled children in other groups are likely to have problems with their short attention span or "short concentration span". Concentration is linking with attention. It is focused and continued interest in something or some matters. Concentration

is essential for learning because there are close relationships among concentration, learning, and memory. If a person has concentration, he or she will be able to learn well resulting in gaining good knowledge, understanding, and memory. Therefore, it is necessary that teachers and parents must cooperate in helping children develop attention span and good concentration.

By playing a game under game conditions, attention must be given to the dynamics of the game and not to the executional acts. Motor learning, as an area of concentrated interest, has produced a considerable store of information about how the learning of different motor skills takes place (Gensemer, 1991). Play gives children an opportunity to experiment with new and unusual behavior and has been linked with advances in cognitive, social, language and emotional development (Phillips & Beavan, 2012; Watson, 2012; Foret, 2012).

This study is based on the above-stated reasons to respond to the need to expand the knowledge body and research documents on organizing activities for enhancing attention span and communication abilities of children with short attention span. The researcher has decided to conduct this research and development study.

### **Research Objectives**

Objectives of this research and development study are as follows:

1. To develop distance training packages for teacher and parent on physical education activities for enhancing attention span and communication abilities of children with short attention span.
2. To study the effects of using the packages on
  - a) participants' achievements in organizing activities for enhancing attention span and communication abilities of children with short attention span;
  - b) participants' opinions on physical education activities.

### **Related Literature**

In this part, the researcher presents a summary about distance training package and physical education activities for children with short attention span. The first is a summary of distance training package and the second for physical education follows.

### **Distance Training Package**

The distance training package involves training with what is taught via distance education. There were two sections to this part: training package and distance teaching. The training package is crafted with a multimedia system. The use of media materials, various methods and techniques are needed to enhance training efficiency. The training package consists of a statement for a lecturer or instructor and a statement for trainees. The trainer must define intended behavioral, structure of content, multimedia, including a test before and after training. Distance teaching was an instructional methods which emphasize on teaching and learning through media such as print, electronic, mechanical or other devices (Moore, 2007). The technologies used for distance education fall into two categories: 1) telecommunication technologies that connect instructors to distant learners and 2) classroom technologies that record, present, and display instructional information. Increasingly, video and computer based systems are being used (Simonson, 2012).

To develop a unit for training, the trainer or designer will design content and structure; most units usually contain at least these elements:

1. Titles are important as they help find bearings in the course; they also draw interest to the subject matter.
2. The introduction should contain statement about the objectives of the lesson. At the beginning of the unit the student will also need advice about what sort of things he will have to do as he works through it.
3. The advice about which books are required needs to be done subtly and to be geared to the learners.
4. Advice on the work to be done by the student.
5. If the course is designed to be used with other media (e.g. tapes, etc.), each unit will need references to these other elements.
6. There should be advice to the student about how to deal with problems that he can't solve by himself.
7. Often a course will include illustrations and diagrams (Pareek & Rao, 1981).

Principles of developing a series of training by means of distance education are as follows:

1. Learner and instructor were not in same place. Validity of multimedia were used to be media. Sometime, it is meeting time for learner and instructor.
2. Focused on self-study. Learners are given time to learn various self-designated; place and various activities by their convenient time or ready. Learners can learn by their own ability and availability.
3. Media used include print media, radio, television, satellite, audio tapes, computer media, etc., and a third person occasionally.
4. Preparing a systematic media before the start of the course. Or institution responsible Organizers will need to prepare the educational process. All media must be completed before production began teaching.
5. Teaching by specialist instructors or as a team. One of the subjects to produce content for broadcast in the form of various types of media.
6. Instruction is supplied to many learners. Education through distance learning can provide learners with a term of more unlimited time. It is available to students in all regions, both near and far throughout the country at the same time )Sungsri, 2003(.

The process of planning and organizing for a distance education course is multifaceted and must occur well in advance of the scheduled instruction. To eliminate trial and error preparation, distance learning faculty should

1. Keep in mind that courses previously taught in traditional classrooms and need to be retooled.
2. In revising traditional classroom materials, consider ways to illustrate key concepts, or topics, using tables, figures, and other visual representations.
3. Plan activities that encourage interactivity at all the sites. Planning for interactivity reduces this problem and helps learners.
4. Plan activities that allow for student group work.
5. Be prepared in the event that technical problems occur (Simonson et al., 2012).

## Physical education

Physical activity is bodily movement of any type and may include recreational, fitness and sport activities (National Association for Sport and Physical Education, 2014). Encouraging children to use physical activity, it must be appropriate to the child's body to grow strong and healthy mental development. If provided for adults, regular and consistent physical activity will help slow the deterioration of the body. It also may help increase attention, which is affecting the ability of academic learning as well (University of Illinois, 2009). Examples of physical education activities include games, indoor sport, outdoor sport, rhythmic activity, body conditioning, outdoor activity and adaptive activity.

## Research Methodology

As a research and development study, the activities of this study are classified into two stages: the developmental stage and the experimental stage. The developmental stage is to fulfill the research objective 1, while the experimental stage is to fulfill the research objectives 2; details of each stage follow:

### *The Developmental Stage*

As the objective of the developmental stage is to develop distance training packages for teachers and parents on physical education activities for enhancing attention span and communication abilities of children with short attention span, the stage comprised five development steps as shown in the chart below:

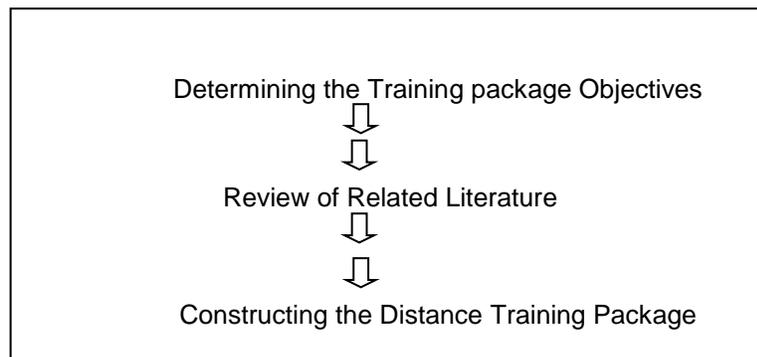


Figure 1: The steps of the distance training package development

Details of each development step are described as follows:

1. Determining the training package objectives. The researcher studied how to determine the objectives and related contents of the distance training package, and then set the objectives of the training package as follows:

- (1) Trainees are able to explain behaviors of children with short attention span.
- (2) Trainees are able to explain the roles of teachers or parents in organizing physical education activities for children with short attention span.
- (3) Trainees are able to explain guidelines for organizing activities to expand the attention span of children with short attention span.

2. Review of related literature. The researcher reviewed related literature including research studies on development of distance training packages, characteristics of children with short attention span, and organizing physical education activities for children with short attention span.

3. Constructing the distance training package. The researcher constructed the distance training package the features of which were the following: the training package title, structure, concepts, objectives, contents, and activities after studying the training package.

Contents of the training comprised two parts: Part 1: General Knowledge on children with short attention span; and Part 2: development of children's attention span.

In development of children's attention span, the researcher developed activities for expansion of the attention span of children. The activities development steps are as follows:

3.1 Review of literature and research studies relating to children with short attention span and organizing physical education activities for children with short attention span.

3.2 Designing activities to develop attention span of children with short attention span with the use of physical education activities.

4. Verifying quality of the distance training package. The following are activities that were undertaken to verify the developed distance training package:

4.1 Experts on special education were asked to evaluate the appropriateness of activities of the developed training package. The indices of concordance (IOC) derived from experts' judgment ranged from 0.60 – 1.00. Experts also provided recommendations for improvement of the training package which the researcher had taken for subsequent improvement of the package.

4.2 The developed distance training package was tried out in the single-subject tryout with two parents and one teacher; in the small group tryout with four parents and two teachers; and in the field tryout with 20 persons. Results of the three tryouts are shown in the Research Findings Section.

5. Improving the distance training package. Results and additional information obtained from the three tryouts were utilized to improve the distance training package.

### *The Experimental Stage*

In the experimental stage, the developed distance training package was tested in order to fulfill research objective 2. Details of the experimental stage activities are described as follows:

The design of the experiment was that of the One Group Pretest-Posttest. The developed distance training package was tested with a sample of 20 persons comprising 10 teachers and 10 parents of children with short attention span.

The experimental steps were the following:

(1) Organizing the pre-experiment seminar involving subjects in the experimental sample and administering the pre-experiment evaluation instruments.

(2) Subjects in the sample studying the distance training package.

(3) Organizing the post-experiment seminar involving subjects in the experimental sample and administering the post-experiment evaluation instruments.

### Data Collecting Instruments

The data collecting instruments employed in the experimental stage are the following:

1. An achievement test. The purpose of this test is to assess knowledge and understanding on children with short attention span and guidelines for organizing physical activities for enhancing attention span of children with short attention span. It is a 5-choice objective test with 20 items. Its validity is represented by IOC's ranging from .60 to 1.00; its difficulty indices range from .40 to .67; its discriminating indices ranged from .20 to .60; and its KR-20 reliability coefficient is .78.

2. A questionnaire to assess opinions toward the developed distance training package. The purpose of this questionnaire is to assess opinions of teachers and parents in the experimental sample toward the appropriateness of the distance training package. Its validity is represented by IOC's ranging from .60 to 1.00.

#### Data Collection

The data collection process in the experimental stage comprised the following activities:

1. Organizing the pre-experiment seminar involving subjects in the experimental sample. The achievement test on knowledge and understanding of the experimental subjects on children with short attention span and organizing physical activities for children with short attention span. The testing time was 30 minutes.
2. Experimental subjects were given the distance training package to study by themselves in advance.
3. Experimental subjects studied the distance training package and tried out the activities described in the training package for 30 days.
4. Organizing a one-day seminar involving experimental subjects at the auditorium of Wat Tai School, Suan Luang District, Bangkok Metropolis. The seminar activities included the following:
  - (a) Lecturing to provide knowledge on organizing activities to enhance attention span of children with short attention span.
  - (b) Demonstration on organizing activities to enhance attention span of children with short attention span. Three following types of activities were demonstrated: indoor activities, outdoor activities, and rhythmic activities.
  - (c) Small group discussions to exchange experiences on tryout of the activities described in the training package.
  - (d) Presentation of discussion results by small group representatives. After the presentation, resource persons provided their comments and concluded the results of the seminar.
  - (e) Post-experiment assessment. The researcher and research coordinators administered the achievement test and the opinions assessment scale to the experimental subjects. The testing time covered 30 minutes.
  - (f) The experimental subjects completed the questionnaire on opinion toward the distance training package.

#### Data Analysis

Research data in both the developmental and experimental steps were analyzed. Statistics for data analysis were the following:

1. The statistics employed for quality verification of the developed distance training package was the  $E_1/E_2$  efficiency index ( $E_1$  = efficiency index of the process;  $E_2$  = efficiency index of the product).
2. Statistics employed in analyzing research data for research objectives 2(a) were the mean, standard deviation, and sign test.
3. Statistics employed in analyzing research data for the research objective 2(b) were the mean and standard deviation of the rating scores. The rating means then were compared with the following criteria for opinion assessment:
 

4.50 – 5.00	means	the opinions are at the highest level
3.50 – 4.49	means	the opinions are at the high level

2.50 – 3.49 means the opinions are at the moderate level  
 1.50 – 2.49 means the opinions are at the low level  
 1.00 – 1.49 means the opinions are at the lowest level

## Research Findings

Research findings are presented in two parts: findings in the developmental stage and findings in the experimental stage, the details of which are as follows:

### Part 1: Research Findings in the Developmental Stage

Research findings in the developmental stage comprise results of the distance training package development and results of quality verification of the developed training package.

#### 1.1 Results of the Distance Training Package Development

The developed distance training package consists of the distance training documents and the manual for using the distance training package.

The distance training documents are composed of directions for study of the distance training package, content structure, concepts, objectives, and contents consisting of two parts:

Part 1: General Knowledge on children with short attention span. The contents of this part consist of the following topics: characteristics of children with short attention span; providing education for children with short attention span; the learning management model; the personalized educational plan; the personalized learning management plan; roles of parents and teachers in educating children with short attention span; and post-study activities for Part 1.

Part 2: Development of Attention Span. The contents of this part consist of the following topics: guidelines for organizing activities to develop attention span; physical education activities to develop attention span which composed of a) stretching muscles activity; b) game to sport; c) rhythmic activity; d) traditional game for children. The last one is post-study activities for Part 2.

The manual for using the distance training package was composed of explanations on the distance training package and its objectives; directions for using the distance training package; the training schedule; lecture documents; and evaluation of the training.

#### 1.2 Results of Quality Verification of the Developed Training Package

The quality of the developed distance training package was verified via three levels of tryouts: single-subject tryout, small group tryout, and field tryout. Based on the tryout results, efficiency indices of the training package, in terms of  $E_1/E_2$ , were computed; also, suggestions for improvement of the package obtained from each tryout were taken for consideration of improvement of the package for subsequent tryouts. Tryout results in terms of  $E_1/E_2$  indices are shown in Table 1 below:

**Table 1: Results of Tryouts for Quality Verification of the Distance Training Package**

Tryout Level	No. of Subjects	Tryout Results $E_1/E_2$
Single subject tryout	3	58.33/57.77
Small group tryout	6	69.17/78.86
Field tryout	20	80.00/82.13

As Table 1 shows, the  $E_1/E_2$  indices of the distance training package increase steadily from 58.33/57.77 in the single subject tryout to 80.00/82.13 in the field tryout which surpass the set efficiency criterion of 80/80.

#### Part 2: Research findings in the Experimental Stage

In the experimental stage, the developed distance training package was experimented with 20 trainees consisting of 10 teachers and 10 parents. The objectives of the experiment were to study the effects of the distance training package on (1) trainees' knowledge and understanding on organizing activities for enhancing attention span of children with short attention span; (2) trainees' attitudes toward providing education for children with short attention span; and (3) trainees' opinions toward the developed distance training package.

Details of findings are as follows:

##### 2.1 The Effects on Trainees' Knowledge and Understanding

The statistical procedure of t-test for dependent samples was employed to compare trainees' pre-experiment and post-experiment scores on knowledge and understanding of organizing activities for enhancing attention span of children with short attention span. Comparison result is shown in Table 2 below:

**Table 2: Comparison Result of Trainees' Pre-Experiment and Post-Experiment Scores on Knowledge and Understanding of Organizing Activities**

No	test		d	sign		t
	Pre	post		+	-	
1	8	10	2		-	.00*
2	8	12	4		-	
3	7	11	4		-	
4	5	9	4		-	
5	8	10	2		-	
6	6	8	2		-	
7	6	10	4		-	
8	6	8	2		-	
9	9	12	3		-	
10	9	11	2		-	
11	8	11	3		-	
12	5	9	4		-	
13	6	8	2		-	
14	10	12	2		-	
15	6	11	5		-	
16	8	12	4		-	
17	8	11	3		-	
18	7	11	4		-	
19	7	12	5		-	
20	6	10	4		-	
median	7.5	10	3.5		-	
range	5	4	3		-	

\*significant at the .05 level

As Table 2 shows, the t value is significant at the .05 level indicating that trainees' post-experiment mean score is significantly higher than their pre-experiment counterpart.

## 2.2 The Effects on Trainees' Opinions toward the Distance Training Package

In determining trainees' opinions toward the distance training package, the mean and standard deviation of the rating for each aspect item of the developed distance training package were computed and then the rating mean for each aspect item was compared with the criteria for opinion assessment. Results of opinion assessment are shown in Table 3 below:

**Table 3: Opinions of Trainees' toward the Distance Training Package**

Aspect Items	Mean	SD	Interpretation
1. the necessity of physical activities for children with short attention span	4.68	0.58	At the highest level
2. the appropriateness of the activity to be organized	4.59	0.62	At the highest level
3. the appropriateness of the materials used in the activity	4.35	0.65	At the high level
4. clarity of language usage	4.04	0.78	At the high level
5. documentation is appropriate activities	4.35	0.86	At the high level
6. print format's font size is appropriate	3.75	0.34	At the high level
7. activities can be implemented	4.55	0.57	At the highest level
8. the appropriateness of the time for study series of activities and demonstration activities	4.15	0.65	At the high level
9. the suitability of the location for the activities	4.35	0.57	At the high level
10. expected benefits from physical education activities	4.53	0.50	At the highest level
Overall	4.33	0.61	At the high level

As Table 3 shows, trainees' opinions toward the overall appropriateness of the developed distance training package was at the high level. When each aspect of the package was considered, trainees had opinions at the highest level toward aspect numbers 1 and 2, namely, the necessity of physical activities for children with short attention span, and the appropriateness of the activity to be organized, with rating means of 4.68 and 4.59 with standard deviation of 0.58, 0.62, respectively. On the other hand, the rating mean for opinion toward print format's font size was appropriated was the lowest, being 3.75 with standard deviation of 0.34.

## Conclusion

The developed distance training package had the efficiency index of 80.00/82.13 which composed of the distance training documents and the manual for using the distance training package. Components of the distance training documents were the training package title, directions for studying the training package, the content structure, concepts, objectives, contents, and post-study activities. Components of the training manual were explanations on the training package and

objectives, directions for using the training package, the training schedule, lecture documents, and evaluation of the training.

Findings on experimentation with the developed distance training package:

1. The sample subjects' post-training knowledge and understanding on organizing physical education activities for enhancing attention span of children with short attention span were significantly higher than their pre-training counterparts.

2. The sample subjects had opinions that the developed distance training package was appropriate at the high level.

## **Discussion**

The researcher found that participants could study and do post activities by themselves. They developed the knowledge and understood about physical activities and they knew that how they could implement to children with short attention span. The developed distance training package had the efficiency index of 80.00/82.13.

Because of 1) component of the package was perfect 2) appropriate process of development of distance training package, it was same for development of training package (Promyong, 1980; Sukpredee, 1984; Ratanaphan, 2010). Moreover, the contents of the training package was continuous and consistent hierarchical. There was basic of knowledge about children with short attention span in part 1 and document about physical activities and example for each activities in part 2. It is easy for parents or teachers to use this package to study and try to practice with their children by themselves. With this property of this package, it helped trainees acquire more knowledge, more experience and able to design physical education activities for their children with short attention span.

## **Suggestions**

1. Trainers who use distance training package should study the manual set on distance training carefully and then study the document on distance training, Physical Education and understand the guidelines before applying to the event.

2. Trainers should have explored the basics of each child with short attention span and use this information to consider when using activities to suit each child.

3. Trainer should have contacted the parents or the teachers involved with children with short attention span to jointly plan the activity, along with observing the activities closely and regularly.

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## The Teacher's Role in Assistive Technology for Everyday Inclusion

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**Abstract:** *In this paper we argue that assistive technologies intentionally disguised as everyday communication devices can include more learners with special needs in the classroom and in society. Newer assistive technologies can also encourage shifts in the education discourse beyond the somewhat restrictive, binary-focused definitions of ability/disability toward designing more inclusive and enabling environments. Technology affordances can open new learning spaces designed for inclusion and independence, employing technology in more innovative ways which resemble everyday uses of technology. The findings from the three case studies of graduate student research reported in this paper encourage a reconsideration of the model of providing assistive technology supports primarily through formal policy mechanisms such as identification and specialized equipment allocations. Instead, the findings indicate that assistive technology integration approaches of the future might more profitably focus on the assets of the learner combined with the potential of the technology to reproduce everyday communications.*

**Keywords:** assistive technologies, least restrictive environment, special education,

### **Context: Everyday Technologies**

Designing assistive technology supports for learners with special needs involves more than the efforts and commitment from the learner's support team to provide an assistive technology device such as a computer. When assistive technology is introduced, both the learner and the teacher need to feel comfortable using the assistive technology. If the assistive technology support makes a learner's individual abilities or learning style more conspicuous, an unintended result may be that students can feel more isolated from the rest of the class. According to Yell and Drasgow (2013) decisions about the most enabling environment for learners with special needs traditionally have been conceptualized as which environment is the *least restrictive*. In this paper we argue that conceptions of the least restrictive environment should include considerations of how assistive technologies can help learner practices resemble the communication with "the ordinary flow of society" (Champagne, 1993, p.5). Teachers are an important element of this enablement.

In the Ontario education context, assistive devices are provided in a formalized way through funding formulae for learners who have been through an identification process. Because of these formalities, both the process of identification of the learner and the assigning of a single, specific device can provide barriers to what Champagne (1993) calls opportunities to get close to everyday life and communications. Three case studies of graduate student research are presented here which investigate assistive technologies across a wide spectrum of learners. Emerging from the findings of these studies is the need to reconsider the model of providing assistive technology supports primarily (and at times solely) through these formal policy mechanisms. Teachers can play a key role in introducing everyday technologies and communications.

### **Theoretical Considerations**

Policies and procedural considerations of the least restrictive environment have been developed by policy and case law (Yell & Drasgow, 2013). In the case of special education legislation, significant focus has been placed on defining the term *restrictive* because the goal of the legislation is to allow a learner with special needs optimal opportunities to learn and be independent. Understandings of policy through case law can arguably be enriched, through theoretical considerations of how learner inclusion and learner independence can be fostered in more enabling environments (Kalantzis & Cope, 2012) and timely and effective uses of everyday assistive technologies (King-Sears & Evmenova, 2007). According to Yell and Drasgow (2013) planning and policy considerations around the least restrictive environment have often been understood as the physical location for the learner's instruction; instead, placement should include considerations of the facilities, the personnel and the equipment as well as the setting (Yell & Drasgow, 2013). The three case studies presented here introduce possibilities for less restrictive (and more inclusive) approaches to learning where learners are not seen as having disadvantages, but in possession of different abilities that can be leveraged to approach learning.

Designing the most enabling environment possible for learners resonates with Champagne's (1993) encouragement of an expansion of the definition of *least restrictive environment*. Rather than focusing solely on including students with special needs in classes with age-appropriate peers, his interpretation includes considerations of providing a learning environment which most closely *resembles everyday life and everyday communications*. In a similar vein, teachers and adult caregivers might also consider how important it is for the technological equipment to be, in the words of King-Sears and Evmenova (2007) "an integral part of the way that instruction occurs in their classrooms" (p. 6).

Dyck and Pemberton (2002) also encourage a consideration of timeliness for the assistive technology intervention for learners who, for example, have struggled with reading for years. They ask educators to consider when is the optimal time to bypass reading (through technology or other means of support) in order to allow learning to continue. As Edyburn (2007) comments, there has been a lack of support to help teachers pinpoint when it makes sense to introduce technology to replace cognitive tasks. While adults no longer have to struggle to calculate compounded interest tables, there is still a sense that children need to be able to compute mathematics and decode reading. Teachers and caregivers need to consider when to incorporate compensatory strategies at optimal points in the learner's growth and development (Dyck & Pemberton, 2002; Edyburn, 2007) in order to allow learners to progress.

In addition to considerations of creating environments where learners use everyday communications and technologies and when they are introduced to them in a timely way, some theorists have highlighted the need to reconsider the overall teacher and caregiver discourse surrounding learners with special needs. Kalantzis and Cope (2012) find that terminology that describes learners in a deficit way has become less acceptable; they encourage teachers to recognize a “range of body forms” and provide what they term as “programs of action” which enable improved access (p. 161). They encourage teachers to consider and build the conditions of *enablement* rather than repeating and reinforcing previously-established classifications of disability (Kalantzis & Cope, 2012).

Graham and Iannacci (2013) argue that teacher education needs more critical and emancipatory approaches which challenge the labeling of students into categories relative to what has been determined as the norm. They want to encourage preservice teachers to deconstruct earlier definitions based on deficits and consider instead the experience and characteristics of each child in a system that should be expecting diversity as the norm. They encourage teacher educators not to replicate “the dominant discourses that universalize and fossilize disability and those who have one” (p. 13) and develop new approaches that speak of promise and potential. Graham and Iannacci also encourage teachers to reconsider learner tasks and broaden the array of practices available to the learner. In these ways, Graham and Iannacci (2013) challenge the dominant educational discourse around differently-abled students.

All three of the case studies presented here align with the theoretical constructs that have been discussed. These are: a) least restrictive environments, b) timely assistive technology interventions, and c) enabling environments for learners.

Case study is a form of qualitative research that not only presents a specific case or study, but can be helpful as a research methodology for guiding policy and practice (Baxter & Jack, 2008). In this paper, the case study method is used so assistive technology interventions for learners can be more fully explored in different contexts and viewed through multiple lenses. The case study researchers are graduate education students. Their case studies and the direction they represent have implications for teacher practice, clinical practice, and policy development.

### **Case Study 1: The teacher’s role in implementing text-to-speech software**

The achievement gap for struggling readers has been well established - struggling readers experience an achievement gap because they can’t work effectively with curriculum materials at their cognitive level (Edyburn, 2007). According to Edyburn (2007), assistive technology has the potential to allow students to reduce this gap so they can access regular curriculum.

There are two important aspects of these reading difficulties: problems decoding and interpreting the actual print; and problems accessing the vocabulary, learning materials, and ideas appropriate for the student’s grade level. If a learner is unable to access the learning materials, the learner falls behind the other students in the class. Text-to-Speech (TTS) software has the potential to improve access to the curriculum materials. A TTS program “reads” print to a student, usually through earphones. Most are computer-based, and read both on-line and print materials. Some software such as Premier and Kurzweil offer other aids such as the ability to add study notes, to summarize text, and to assist students as they write. Previous research into the use of TTS and other text readers has had mixed results (Stetter & Hughes, 2010). Some

studies show that students are able to access print at higher levels than without the software, but do not show improved comprehension (Manset-Williamson, Dunn, Hinshaw, & Nelson, 2008). TTS may interfere with comprehension and speed of reading for some (Schmitt, Hale, McCallum & Mauck, 2011).

The TTS for reading case study investigates the effects of the use of a text-to-speech reader in a six-week intensive reading program for junior-age students with reading disabilities where students receive intensive remediation in reading and assistive technology skills. The study was designed to determine whether junior-age students could achieve competence with TTS within a six week intensive placement, and to determine the effects of the use of TTS on their access to print and their reading comprehension. Data were gathered through interviews of the intervention program teachers to obtain their observations and assessments of the students using a criterion-based reading test.

Students were referred to this six-week withdrawal program for assistance with a variety of learning difficulties not attributable to their cognitive level. Five students received remediation in reading, the use of TTS, and other technologies. Three of the students had limited previous experience with TTS. Two of the students had a prescribed personal computer and TTS software but were not successful with it and were reluctant to use it in their home school classroom. Explicit instruction was provided in the use of the Kurzweil 3000 TTS reader. Application of new software skills occurred throughout the day in activities such as reading books, completing worksheets and math problems, writing a student journal, researching on the internet, emailing friends at their home school, and preparing a presentation using PowerPoint. Teachers devised learning aids to facilitate comprehension, such as key questions, comprehension organizers, and teaching students how to use the Kurzweil program to highlight key points as they read and reread fiction and non-fiction materials.

Findings from this study (White, 2013) indicate that the students found the computer voice odd at first but became comfortable with it by week two. By week six, all students could use Kurzweil independently to scan their own materials, to assist them with their own writing, and to read print and on-line text. Observations and test results using a criterion based reading assessment, Developmental Reading Assessment (DRA) Bridge Pack, demonstrated higher fluency and comprehension scores over the six weeks when using Kurzweil. Students' motivation to read improved significantly as they accessed the same popular books their peers were reading, and used TTS to email their friends. All students found books they loved to read.

The teachers were an important contributor to the success of this case study in several ways. They were skilled with TTS and other technology and were able to support student mastery of the technology. They devised learning strategies to improve comprehension which were tailored to individual student needs. They looked for popular book series that would engage the children to encourage them to continue reading at their home schools; and they were able to solve daily challenges with the use of the hardware, such as connection and printing problems (White, 2013). Students were assessed using the Developmental Reading Assessment (DRA) Bridge Pack Grade 4-8 (2004), which has comprehension cues to assist students to recall and summarize the story. Book levels used for weeks 1 and 6 were individually selected according to DRA guidelines and the previous assessments from the home school for the students.

Results demonstrated that TTS computer-based readers offer effective technology tools when implemented to a level of student mastery and efficiency with the technology. Figure 1 represents the fluency scores for students during the week six DRA Bridge Pack 4-8 (2004) assessment, comparing fluency scores between reading a paper copy of the DRA booklet and a digital one which was scanned into Kurzweil and read to the student. The students selected the words-per-minute speed at their comfortable listening rate, 125 wpm. Each student read a different book at the same level, first in print and two days later with Kurzweil. Students were able to access much more print using Kurzweil.

Figure 1

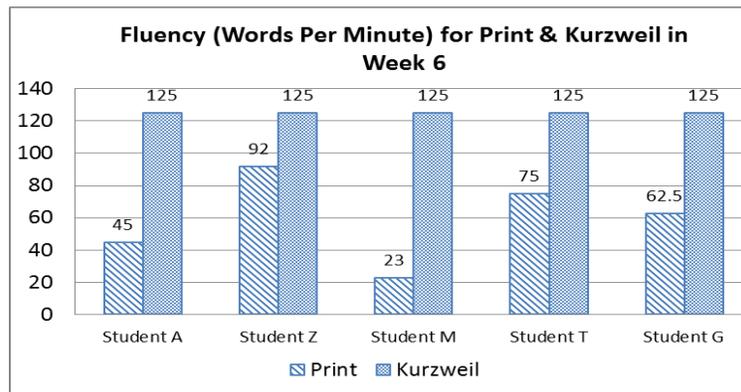


Figure 2 represents the comprehension scores for students during the week six DRA assessment. It compares comprehension scores between reading a paper copy of the DRA booklet and a digital one which was scanned into Kurzweil and read to the student. Four of the five students showed improved comprehension.

Figure 2

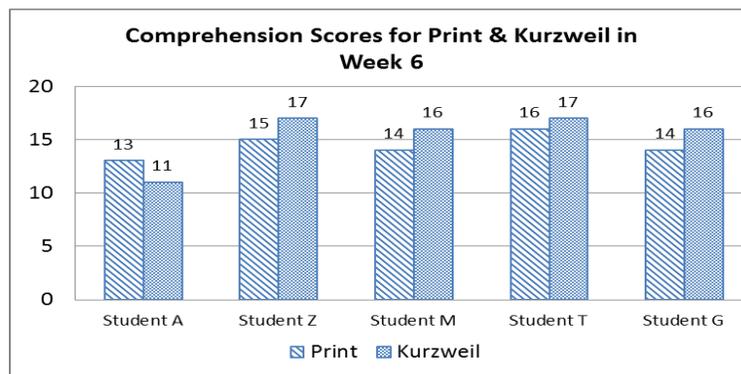
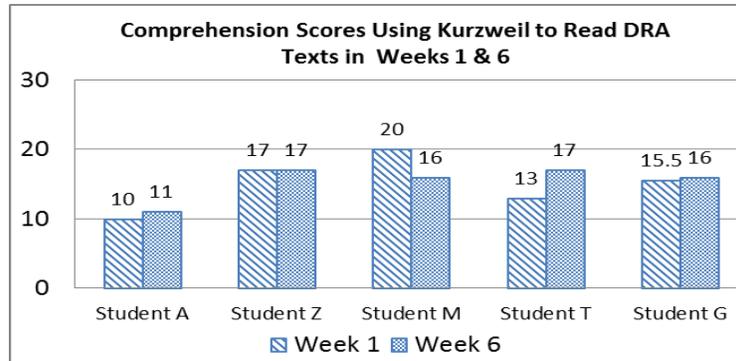


Figure 3 represents a comparison of comprehension scores over weeks one and six using Kurzweil. Comprehension scores using Kurzweil were higher or maintained for more difficult reading material in week six for 4 of the 5 students. Student M had a lower comprehension score on the DRA in week six, but her teacher noted that she had been reading grade-level material

(grade 5) recreationally with good comprehension based on oral retelling to the teacher, and emailing her friends at her home school to discuss the book (White, 2013).

Figure 3



There were several challenges that teachers faced when implementing the program including: 1) extensive time required to scan and edit materials to show the pictures and text appropriately; 2) lack of an available library of already-scanned books in the school; 3) books ordered from a public source for scanned books had no editing for picture or print size and left in extraneous details such as titles at the top of pages; and 4) the technology frequently had glitches which required problem-solving and flexibility (White, 2013).

Edyburn (2007) suggests that students should be offered technology when it is needed to allow them to participate fully in the curriculum. The findings of this case study suggest that this point is reached for students in the junior division, grades 4 to 6. Results indicate that junior students are able to demonstrate improved fluency and comprehension when provided with ready access to text-to-speech technology to assist them with their reading, combined with skillful instruction in an immersive technology environment. Students were initially uncomfortable with the technology, but they soon mastered it. Teachers reported that instructional strategies to support comprehension improved student performance. In an instructional environment which included ready access to technology for all the students, they were willing to use their TTS and computer for their work, and four of the five chose to use it for recreational reading as well. King-Sears and Evmenova (2007) find that technology skills are an important preparation for future career success. When technology is an integral and valued part of the classroom instruction, the student using assistive technology on a laptop blends in with his or her peers, and is likely more comfortable using it. This atmosphere creates a more enabling, less restrictive learning environment (Kalantzis & Cope, 2012; Champagne, 1993) and allows more students to fully participate in the academic and social life of the classroom.

### **Case Study 2: Developing communication software for adults with autism**

The second case study also examines how to create more enabling environments using technology. The research focuses on the development of an iOS app (mobile operating system application) that makes use of situated learning, augmented reality, and communities of practice to create an authentic learning environment. The population to be studied is young adults and adults with autism spectrum disorder. This research study is in its developing stages; the design,

methodology and potential implications of the research connected to the theme of this paper are discussed here.

Individuals with autism spectrum disorder (ASD) are categorized as having social impairments, including impairments with verbal and nonverbal communication, as well as having repetitive patterns of behaviour, including the desire to follow strict routines and a resistance to change (American Psychiatric Association [APA], 2013). These individuals also have low adaptive skills, causing them difficulties when planning and organizing (APA, 2013). Young adults as well as adults with ASD often have a high prevalence for anxiety and depression (APA, 2013). These limitations can be huge barriers for individuals when they are in the classroom, workplace, or other social environments.

The iOS app that was developed is a transportation app, which can be used to navigate Toronto by using the Toronto Transit Commission's (TTC) subways, buses, street cars, and light rail cars. Users can either type in their starting address to use the transportation system or the app can locate where they are using GPS. Afterward, the user can type in the destination address and the app will provide them with the best route. During the trip, the app will provide turn-by-turn navigation as well as signal when the user should start preparing to exit the vehicle. For this study, participants will be asked to navigate from one destination to another location within the city. Qualitative and quantitative data will be collected through researcher observation and the use of questionnaires and interviews. The questionnaires and interviews, paired with the collected observations, will measure intrinsic learning within these individuals as a result of the use of the app.

The study was developed in the hopes of creating an authentic learning environment for the participants. Authentic learning, as looked at in this study, occurs when there is construction of knowledge, disciplined inquiry, and a value beyond school (Wehlage, Newmann, & Secada, 1996). This type of environment allows individuals to produce their own knowledge, rather than simply reproduce information (Wehlage et al., 1996; von Glasersfeld, 1989). Learning in this regard allows individuals to take control of what they learn in an active manner, giving each individual more power over their learning (von Glasersfeld, 1989). Additionally, this study provides a task to the individual that is both meaningful as well as authentic, which is the basis of situated learning (Brown, Collins, & Duiguid, 1989). This type of environment aligns with Champagne's (1993) view of the least restrictive environment (LRE), as individuals are learning in situations that are true to everyday life. The design and implementation of this app provides a meaningful learning environment for individuals with ASD, which is suggested in order to achieve the LRE (Rozalski, Stewart, & Miller, 2010). In this type of environment, individuals are able to learn to navigate transit without being isolated from the general population or restricted in any form. The use of a phone app fits in well with communication that most closely resembles everyday life.

Young adults and adults with autism spectrum disorder can be fully integrated within society in terms of school and work. Depending on the level of their impairments, young adults and adults with autism spectrum disorder are able to attend secondary and post-secondary schools as well as hold part-time or full-time jobs and participate within their community. However, as mentioned above, this may not be easy for these individuals as they may suffer from anxiety, depression, or low adaptability (APA, 2013). These feelings are not exclusive to ASD,

as other neurodevelopmental disorders can also have similar symptoms in unfamiliar situations (APA, 2013). This demonstrates a need for interventions that are practical and timely to allow individuals to fully integrate within communities.

Edyburn (2007) discusses the concept of timely interventions when incorporating support tools. Intervention should take place in a timely manner and in such a way that benefits each individual based on his or her learning needs (Edyburn, 2007). Providing young adults and adults with ASD with this app provides them with a tool that can be used to support them throughout their journeys to school, work, or community-based programs. Targeting this population provides an intervention that is opportunistic to their developmental needs, by providing a way that they can navigate a scenario with additional supports in place.

To provide the most support, the app has been developed to provide supports that would not be available to the user otherwise. Using augmented reality (AR), the app provides supplemental virtual information that has been layered onto the physical world (Azuma, 1997). The app has been designed in a very minimalistic manner that looks similar to other iOS applications. Additionally, there is no labeling of the app as part of a research project or alluding to the participants' diagnosis of ASD. This reduces the chance of any negative social implications for participating in this research project, and also protects the individual from being involuntarily labeled as someone with a disability. By removing a label for this app, it can be used by anyone, regardless of his or her ability/disability status. This type of inclusive environment is of the utmost importance in order to break down barriers that are a product of stereotypes of disability (Graham & Iannacci, 2013; Iannacci & Graham, 2010).

The potential implications of this study can provide an advantageous pedagogical approach to all individuals, both those with disabilities as well as those without. By providing an environment that makes use of authentic learning, timely interventions, and tools that can be used by all, the hoped-for result is that barriers for learners with disabilities should be reduced. This should produce an environment that is rich, fulfilling, and inclusive.

### **Case Study 3: Investigating policy possibilities for assistive technologies**

The third case study is a policy investigation of assistive technology, which focuses on two key themes: special education and technology. Current policies related to both special education and technology were examined, including a resource guide for the Individual Education Plan (Ministry of Education Ontario [MOE], 2004) and the standards for the development, program plans and implementation for individualized programs (MOE, 2000). In addition, several curriculum policy documents were analyzed such as the curriculum policies for Language Arts and Social Studies (MOE, 2009, 2013). Finally, interviews were held with policy writers in order to examine the role of technology in designing a curriculum resource based on the policies.

The policy context for inclusive workplaces is changing in Ontario. In 2010, the Accessibility for Ontarians with Disabilities Act (AODA) became law (Government of Ontario, 2011). The AODA's core principles include: dignity, independence, equal opportunity, and integration. According to the Special Needs Opportunity Window (SNOW, 2013) the first AODA standard is Customer Service. This standard provides educational institutions with a framework to use when establishing policies, practices, and procedures to ensure that they are

accessible to people with disabilities. These include determining effective ways to: communicate with individuals who communicate using assistive technology; incorporate assistive technology into instructional practices; assist school boards in resolving their current practices which create barriers to individuals with disabilities; and providing information (e.g. curriculum, worksheets, emails) in an accessible format (SNOW, 2013).

The approach advocated by the OADA policy is one of inclusion yet the approach used in schools may not be closely aligned with this. Storey (2007) argues that ableism is an overlooked form of prejudice which is historically common in schools and society, and is used when analyzing why students with disabilities experience academic difficulties. Ableism is associated with a medical model of trying to fix people with disabilities; it encourages the belief that it is better to not have a disability or if you do have a disability, then one should do things in the way that non-disabled people do. Storey (2007) suggests that while school boards, curriculum committees, and textbook companies embrace multiculturalism and contributions of women and people from ethnic and cultural minorities in the general education curriculum, incorporating disability-related content in all areas of the curriculum may be lacking. Providing professional development for teachers which focuses on disability, discrimination, and multiculturalism may assist teachers to identify the impact of ableism in schools and society. Effective special education training for teacher candidates could also significantly impact their attitudes and the profession as a whole (Storey, 2007).

Research by Graham and Iannacci (2013) on teacher candidates' beliefs regarding students with learning disabilities supports a need to deconstruct the current deficit-focused practice in schools which reinforces norm-based disabled/abled parallel forms of education and which results from the current identification process and instructional practices for students with exceptionalities. They find that teacher candidates stereotypically conceptualize learning disabilities using negative constructs, focusing on the students' limitations instead of their potential. Terms such as *impairment* or *inability* compare students with disabilities to the class norm (Graham & Iannacci, 2013). Their research suggests that disability is a social construct based on society's values and beliefs. Possible explanations for this discourse include how the Ministry of Education defines exceptionalities in their official policies, documents, and website, and this may perpetuate and reinforce the deficit model.

A review of current MOE curriculum policies documents and some specific special education resources also finds some policy contradictions related to assistive technology. One curriculum policy states, "Since technological advances continue to develop at an unprecedented rate, educators should promote the learning of multiple literacies as crucial to living successfully in an age in which communication and change have so much importance" (MOE, 2009, p.55). Another considers that, "The integration of ICT into the (name of) program represents a natural extension of the learning expectations" (MOE, 2013, p. 53; MOE, 2009, p.57). These demonstrate the Ministry of Education's belief that technology is an important part of the educational experience which is designed to help learners be valuable and contributing citizens. However, these documents do not clearly outline how teachers are to use technology to assist students with exceptionalities and refer the reader to two specific special education documents. The first document is the *Individual Education Plans Standards for Development, Program Planning, and Implementation* (2000) which does not mention technology applications. An

Ontario curriculum resource: *The Individual Education Plan (IEP): A Resource Guide* (2004) refers to assistive technology only as an accommodation (MOE, 2004).

Interviews with policy contributors from one Ontario region confirm the current deficit-focused discourse for special education. The policy contributors were chosen because of their participation in a regional team Special Education project. This project outlined the need for more provincial consistency when assessing and evaluating the achievement of students with developmental disabilities. The students requiring more program consistency were those not able to access the provincial curriculum; instead they needed to be assessed and evaluated on their IEP's alternative learning expectations. One area of the interviews with participants focused on benefits and barriers related to accessible technology. When asked how they envisioned the use of everyday technology in the resource document they created, the policy gaps became apparent. Common statements supported the belief that technology was already embedded in curriculum categories such as math and safety; that it was the individual school board's responsibility to embed technology into programs based on their process; and that the use of technology was tied to Special Education Allotment (SEA) grant funding, which assigns equipment based on identification of a disability (Ellis, 2013).

Many of the participants in the study believed technology was an important tool to improve achievement, independence and inclusion for students with developmental disabilities. They acknowledged, however, that without meeting the Ministry of Education's Special Education Allotment Grant guidelines, students were unlikely to gain access to this equipment. Other barriers identified related to implementation of technology into the student's program which included teachers' attitudes towards technology, adequate student and staff training, and reluctance of students to use their equipment (Ellis, 2013). These findings resonate with earlier findings by Gold and Lowe (2010).

In summary, this third case study finds contradictions between the language of enablement in more recent curriculum policy documents while the language in more long-standing Special Education policies focuses on how students require identification and specialized equipment rather than access to everyday technologies.

### **Summary and Recommendations**

The findings from the three case studies reported here indicate that teachers, caregivers, and policy makers need to consider that assistive technology has the potential to be enabling but also isolating for a person who is differently-abled. The case studies also show that, while the least restrictive environment for students should include access to everyday communications and everyday technologies, we are not "there" yet with technology and special education policies and practices. There is a need for more concerted efforts at the policy level to encourage a discourse that sees learners both as differently-abled and capable of using everyday technologies matched to their learning style and capacity.

While findings indicate that technology barriers do persist and are real, they also show that there are opportunities for teachers and pre-service teachers to be key players in expanding assistive technology for all, including those with special learning needs. In this way, assistive technologies can be focused on building community rather than isolation. Together, the case

studies are significant, as they indicate ways forward and insight into successful implementation of assistive technologies in inclusive settings for learners with disabilities.

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## Social Media Use in the Classroom: Pedagogy & Practice

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**Abstract:** *Herein the argument that there are advantages and disadvantages to social media usage in schools is advanced. Benefits outweigh drawbacks thus the use of social media continues to seep into curricula and curriculum at ever increasing rates. As educators, part of our responsibility is to prepare students for life. For this reason, considering the increasing prominence of social media in today's society, it should also be our responsibility to help students learn how to use social media in an appropriate manner. To do this we need to connect as educators and find ways and means to authentically use this technology within the many guidelines, and policies surfacing in educational organizations.*

**Keywords:** Social Media, Digital Pedagogy, Instruction

### Introduction

A recent study of 800 teen-agers found social media use was widespread and over 95 ( $n=760$ ) percent of teens studied used the Internet, while 81 ( $n = 650$ ) percent used social media sites (Madden et al., 2013). Other researchers have revealed, “96 percent of youth in this age range have used social networking tools at some time, with their average engagement with them rivaling time spent watching TV at nine hours a week” (Klopfer, Osterweil, Groff, & Haas, 2007, p.12). Rios-Aguilar (2012) and other researchers confirmed the upswing in social media usage in post-secondary institutions, as well as advantages and disadvantages of social media use on college and university campuses (Abe & Nickolas, 2013; Dame, 2013; Freidman & Freidman, 2013). In spite of this widespread and increasing usage of social media nominal research currently exists examining the current state of social media use in schools (Tomaszewski, 2012). This need to look into student social media use is acute, pressing and omnipresent. Levin (2013) suggests social media is a “cultural phenomenon, enhancing interpersonal communication and changing the nature of relationship between the individual and a society” (p. 11). With this change comes concern, especially from educators. Yet, most concerns are not really how many students use the Internet or how many use social media tools; it is more about how the internet and social media tools are handled and used, and really, why they are used given the inherent benefits and drawbacks.

### Social Media: Popularity

We know the internet is widely used and that social media tools essentially present more ways to connect, so when a recent report found 94 percent of 12 to 17 year old participants had Facebook accounts, 26 percent had used Twitter and 11 percent used Instagram (Sterling, 2013), the public should not be surprised. What is surprising is that Facebook, while popular is currently only ranked nine in a recent global survey of the top 100 social media sites. Facebook was founded on February 4, 2004 “by Mark Zuckerberg with his college roommates and fellow Harvard University students” (Wikipedia, 2013).

Despite the popularity of social media tools the majority of teachers are hesitant to utilize social media in their classrooms (Lin, Homman, & Borengasser, 2013). Many sense hazards within social media and are apprehensive that inappropriate student actions and possible online bullying may outweigh the positives: Other educators indicate a lack of understanding and/or familiarity with social media resulting in a lack of effort to employ it within their classrooms (Stevens, 2013; Lin et al., 2013).

We know that some educators currently believe that the use of social media tools such as Facebook, Twitter, YouTube, Wikipedia, Google Docs, Google, blogs, Tumblr, Vine, Snapchat, Instagram, and Wattpad, provide students with a wider audience with whom they can connect and share their ideas (European Schoolnet, 2013). However, would the ideas shared be the same ones shared in a face-to-face classroom situation, possibly not according to Collier (2012) who has advanced the notion of online disinhibition. Online disinhibition suggests students may act differently online due to the online distance perception, its virtuality and student naiveté. Students may be digital natives but they can lack the maturity to make good decisions online regarding how it should be used. Therefore, we need to ask: What sites are ok and at what age? Who should the student share with? How much should they share and does age impact these guidelines if any are in place? These are difficult questions in fast changing times since too much oversight and restrictive policy could eliminate the possibility of using some of these useful learning tools.

### **Oversight of Social Media**

The Ontario Council of Directors of Education (CODE) has “identified the effective use of Technology as an important area for supervisory officers’ professional development, leadership and dialogue” (CODE, 2011, p. 4). In step with this important decision, the Ontario College of Teachers who certifies and oversees teachers in the largest province in Canada concludes:

Electronic communication and social media can be effective when used cautiously and professionally. They serve a range of purposes, from helping students and parents/guardians access assignments and resources related to classroom studies to connecting with classrooms in other communities and countries.  
(Ontario College of Teachers, 2014)

However, the Elementary Teachers Federation of Ontario cautions its members and explains that they continue to support the responsible use of “social media as an excellent teaching tool, provided it adheres to professional standards. ETFO warns its members that anything they post can be: forwarded, taken out of context, copied, manipulated and impossible to remove from cyberspace” (ETFO, 2014, p. 1). Most Ontario education stakeholders have policy and stances on the use of social media for example one secondary school offers this expectation: “At all times, students are expected to use the social media tools in a responsible manner and in support of the curriculum expectations being addressed” (Thames Valley District School Board, 2014). What about staff, teacher aids, school volunteers, custodians, school councils, trustees and others. Each stakeholder requires directions and guidance concerning social media, yet this is beyond the scope of this paper.

Nonetheless, there is a need to focus on all stakeholders and not so much on the technology or is this unwise? If we focus on the social media sites and direct our attention

towards, “technocentric instruction, our teaching [is focused] on technology rather than the learners who are using it” (Murphy, 2013, p. 6). This can cause us to ask: does the technology drive the vision or does the vision drive technology? Again, the reality that Facebook was born in 2004 with many other social media tools following this gives us an idea of how quickly technology can outpace law, policy and guideline development. Even our own Canadian government Institute of Public Administration of Canada (2010) has reported how the pressures to use social media “are as irresistible as the tides. Government is recruiting thousands of young new professionals for whom social media are the way they live, work and think. Even without a business case, there would be a strong cultural one” (Fyfe & Crookall, 2010, p. 9). Governments are admittedly slow and steady forces in most countries and to have our own Federal Canadian government report that social media is something they need to observe and respond to is evidence of the impact the internet phenomena is having on our society.

Obviously, it has only been a few years since the arrival of Facebook and there have been issues, conflict and new problems. It is estimated that globally over one billion people visit Facebook each day for five minutes and it is still only ranked only #9 in terms of popularity in 2013 (Fewkes & McCabe, 2012). Considered in another light, “the digital age information is used by citizens and companies as a resource that can provide economic and social value, increasing a country’s innovative capacity and competitiveness” (Fyfe & Crookall, 2010, p. 5). Canada’s leaders of tomorrow are the very students using this social media hence Canada’s innovative capacity and competitiveness is in the secondary classroom today.

### **Most Popular Social Media**

“Countries around the world are taking initiatives to manage and benefit from social media” (Fyfe & Crookall, 2010, p. 12). The question could be asked which social media should we attend to as there are new applications, programs and services being introduced daily. Luckily there are people who feel the need to rank social media tools in terms of their popularity for instance, the top 100 Tools for Learning 2013 are linked to the results of “the 7th Annual Learning Tools Survey. The list was compiled from votes of 500+ learning professionals from 48 countries worldwide” (Hart, 2014). “A learning tool is a tool for your own personal or professional learning or one you use for teaching or training” (Hart, 2014). Once aware of the rankings we can examine the ranked list, for example,

**#1 - Twitter** was created in March 2006 by Jack Dorsey, Evan Williams, Biz Stone and Noah Glass and by July 2006, the site was launched. The creators explained: ...we came across the word 'twitter', and it was just perfect. The definition was 'a short burst of inconsequential information,' and 'chirps from birds'. And that's exactly what the product was (Wikipedia, 2013).

**#2 - Google Docs** is a free web-based word processing, spreadsheet, presentation, form and data storage service from Google where one can work alone or collaboratively. One can also import documents from MS Office and Open Office. It is also referred to as Google Drive. (Wikipedia, 2013).

**#3 - YouTube** is a video-sharing website, created by three former PayPal employees in February 2005 and owned by Google since late 2006, on which users can upload, view and share videos (Wikipedia, 2013). Typical recreational user?  
<http://www.youtube.com/watch?v=6fqlzXBc7Eo>

**#4 - Google** is a powerful search engine. It is often described as the only e-learning tool you’ll ever need (Wikipedia, 2013).

#5 - PowerPoint, presentation software is part of the Microsoft Office suite. PowerPoint is now back to its 2007 ranking (Wikipedia, 2013).

#8 - WordPress is a blogging platform that is free and easy to use. It can also be used to create a fully-functional website. Wordpress.com is the, hosted version. WordPress.org is free open source software that can be downloaded and used to build a website or blog (Wikipedia, 2013). Another popular social media tool is one developed by Jimmy Wales and Larry Sanger who launched Wikipedia on January 15, 2001, the latter creating its name, a portmanteau of wiki (the name of a type of collaborative website, from the Hawaiian word for "quick") and encyclopedia (Wikipedia, 2013).

#65 - **Tumblr** - Development of Tumblr began in 2006 during a two-week gap between contracts at David Karp's software consulting company, Davidville (housed at Karp's former internship with producer/incubator Fred Seibert's Frederator Studios which was located a block from Tumblr's current headquarters) (Wikipedia, 2013).

Perhaps, a ranking effort such as this is flawed since it is actually the number of users that may be the critical indicators and not the opinions of experts. The European Schoolnet (2013) recently completed an action research effort entitled Social Media in Education and Learning (SMILE) which illuminated educational efforts to utilize social media in European classrooms. The European Schoolnet (2013) found that even a simple, "writing, re-writing or editing an article about your school in Wikipedia can become the output of a well-researched cross-curricular project . . ." (p. 24). The European Schoolnet (2013) then concluded how "social media can also be used to collect information and data from students and other key stakeholders. Tools like SurveyMonkey and Facebook Polls provide a great and easy-to-use platform" (p.24), as long as ethical approval and permissions are in place before these social media efforts commence. "Social media tools can be used to encourage collaboration. Google Apps for Education and Google Plus provide some great (and free) collaboration tools to assist with learning and teaching" (European Schoolnet, 2013, p. 23). Whatever and wherever social media used it is likely students will respond positively as many are using these tools in their everyday life (Stevens, 2013)

## **Secondary School: Social Media**

An Ontario Secondary School recently declared:

When students are able to safely share their ideas with an audience broader than just our classroom, they can often discover their voice and become even more motivated to learn, communicate, and share their ideas effectively with others. An additional outcome of our use of electronic communication and social media is to help students learn through experience, ways to safely use the Internet to share information and to collaborate. To protect student privacy I will:

- Use only first names of students, if names are used at all, identifying student work and ideas.
- Ensure that release forms have been signed if any pictures or videos are posted of your son/daughter as part of the work we are doing with the social media site.
- Engage students in a conversation about the importance of maintaining their own privacy and being aware of the risks and responsibilities when posting names and information related to other students.
- Familiarize myself with the provider's Terms of Service. (Thames Valley District School Board, 2014)

Much of this has grown out of a series of issues, problems, and research in classrooms, schools and Board endorsed investigations.

Consider the claims from Palak and Walls (2009) who investigated technology use in the secondary classroom and concluded that an educator's attitude toward technology was the strongest predictor of whether or not they would integrate technology into their classrooms. Technology integration is a measured and multifaceted process influenced by many factors, and requires a large amount of support (Inan & Lowther, 2010). However, despite inherent unease many educators do infuse social media. One instance is a social media pilot program in Portland, Oregon where a grade seven teacher reported a 50% increase in student grades as well as a reduction in chronic absenteeism by more than one third (Kessler, 2010). Social media in this case seemed to have "deepened academic dialogue" within online learning communities (Stevens, 2013), increased student engagement and authenticity (Renfro, 2011). In a recent national Canadian report Roberts (2013) concluded that "students have authentic learning opportunities with the integration of social media. . . experiencing the integration of social networks and tools into formal learning opportunities, students described deeper and more meaningful understanding" (p. 23).

### **Benefits**

Current research into the use of social media in secondary schools illuminates many benefits (Renfro, 2011). "Social networking media engages the user in the content and allows them to be included as an active participant as they construct a *learning landscape* rooted in social interaction, knowledge exchange, and optimum cognitive development with their peers" (Baird & Fisher, 2006, p.24). Social media has been found to increase collaboration in schools, enhance participation and improve communication (Abe & Nickolas, 2013; Kassorla, 2013; Lin et al., 2013).

The use of social media tools improves collaboration through increased connectivity as online classrooms become teaching and learning communities (Casey & Evans, 2011; Fewkes & McCabe, 2012), offering students fresh and thought-provoking means to connect (Abe & Nickolas, 2013; Renfro, 2011). Social media usage also challenges traditional teaching and learning models, providing formal and informal learning opportunities (Casey & Evans, 2011; Kassorla, 2013). For example, instead of conveying a "finished and complete packet of information" (Casey & Evans, 2011, p. 3) to students, online participants learn "together online, with the students acting as facilitators" (Casey & Evans, 2011, p. 21). Collaboration with a global audience and building community via social media is also a motivational force (Kassorla, 2013; Renfro, 2011). Imagine for a moment being able to book the virtual expert speaker, take a virtual field-trip and/or stage virtual presentations for others globally; this gets the attention of students (Dame, 2013), while keeping costs down as they appear on Skype, and Twitter. Research can be completed online via survey monkey and/or Kwiksurvey, obviously after ethics approval via the school Administration, School Board or Community Group. Virtual field trips via YouTube (Schachter, 2011) prove motivating for all and engages a digital generation. Admittedly "when used effectively, new technologies have the potential to allow students to 'speak' to a world far beyond their local community" (Casey & Evans, 2011, p. 1).

Social Media usage has demonstrated positive side effects such as improved collaboration, greater participation and increased student engagement (Abe & Nickolas, 2013;

Fewkes & McCabe, 2012; Lin et al., 2013; Schachter, 2011; Tomaszewski, 2012). The authenticity of social media attracts students (Tomaszewski, 2012). Social media moves from distraction to motivator, attracting attention to curricula (Abe & Nickolas, 2013). Social Media usage leads to alternative participation (Elavsky et al., 2011), enhancing inclusion (Abe & Nickolas, 2013; Dame, 2013).

“Evidence shows that social media are already affecting the ways in which people find, create, share and learn knowledge, through rich media opportunities and in collaboration with each other” (Redecker, Ala-Mutka, & Punie, 2010, p.11). This enhanced communication can be viewed as a benefit as all humans are social beings. Schools communicate more with parents via social media (Devitt, 2010). Schools are able to reach parents more often in an economical manner (Schachter, 2011). Administrators can tweet, Skype, instant message and create Facebook pages to contact staff, faculty, and members of the community (Freidman & Freidman, 2013). Pages include updates, news, announcements, pictures and links (Schachter, 2011). In doing this each school appears current, connected and a part of the digital culture. This is important since,

there’s a sharp disconnect between the way students are taught in school and the way the outside world approaches socialization, meaning-making, and accomplishment. It is critical that education not only seek to mitigate this disconnect in order to make these two ‘worlds’ more seamless, but of course also to leverage the power of these emerging technologies for instructional gain. (Klopfer et al., 2007, p.3)

Social media tools decrease any disconnect as the social world of the student merges with school communication, making education more authentic, meaningful and available (Casey & Evans, 2011). Early in this rising social media economy it was Baird & Fisher, 2006 who suggested:

The current generation of learners is ‘hardwired’ to simultaneously utilize multiple types of Web-based participatory media. This is a technologically savvy generation of learners who have no concept of using the 26-volume set of encyclopedias. They have grown up with the Web, are ‘always-on,’ and expect to utilize technology in their learning. (p. 10)

The benefit of social media lay in its ability to boost student connections and interaction outside of the school and curriculum (Abe & Nickolas, 2013). All students can be involved regardless of ability for instance those with special needs where, “alternative tools can be chosen that accommodate for these differences and mediate the inclusion of learners with special needs” (Redecker et al., 2010, p.10). Social media is often asynchronous as it is ready when you are and tutelage (extra help) and homework chat rooms/bulletin boards can be located online when the student needs those (Fewkes & McCabe, 2012). Over ten years ago an astute researcher saw the potential suggesting, “the use of technology-based interventions shows great promise for improving the academic performance of students with LD on general education expectations” (Maccini, 2002, p.260).

The popularity and growth of social media use continues to surge for example, “WordPress 3.3 has been downloaded over 12 million times. This latest version of the software was released on 12 December 2011, making that an average figure of 105,263 downloads per day” (Bowers, 2012). WordPress is a global social media tool and “has been translated and localized into at least 73 different languages. This has been achieved entirely on a volunteer basis, by passionate WordPress users in all parts of the world” (Bowers, 2012). These statistics

demonstrate the growth and movement of social media globally not to mention the impact it has on digital literacy which some believe is still within an educator's current job description (Casey & Evans, 2011).

### **Drawbacks**

From the onset of this section it is necessary to introduce the notion of negativity within change and suggest those who fear it develop reasons why it is wrongheaded, problematic and threatening. Alternatively, many struggle to “define success and how to assess value in social media initiatives. . . [as] the tools are relatively new and many are still in the experimentation stage, and second, social media initiatives are generally part of a broader communication strategy” (Fyfe & Crookall, 2010, p. 35). Communication in education is something that is controlled, filtered and measured; yet social media takes that control away from the adults in the school and presents uncertainty through new communication pathways. As well, unwelcome outcomes can be linked to the use of social media in schools which result in increased time on tasks, diminished quality of work, privacy (security) concerns and several studies have shown that digital literacy has no impact on achievement scores (Abe & Nickolas, 2013; Dame, 2013; Fewkes & McCabe, 2012; Lin et al., 2013; O'Brien & Torres, 2012; Vigdor and Ladd 2010; Malamud and Pop-Eleches 2011).

Numerous researchers agree that an overwhelming disadvantage of social media tools in the classroom is the additional time commitment (Abe & Nickolas, 2013; European Commission, 2013; Freidman & Freidman, 2013). In order to effectively incorporate today's social media technology into class routines and curriculum; teachers need to spend time learning and implementing the various components (Lin et al., 2013). Also, it is imperative that teachers provide students with adequate time and support to become familiar with the forms of social media being utilized (Dame, 2013). Teachers also need to locate additional time to monitor online behaviour (Abe & Nickolas, 2013; Casey & Evans, 2011; Dame, 2013). However, a recent European Commission (2013) survey found teachers could not access and navigate online due to sluggish downloads (narrow bandwidth) and time-consuming (old) processing hardware. This same survey revealed that some teachers required computer literacy, practical support and lacked or misplaced resources. With time in short supply in a teaching day the technology (social media) must be available, supported and ready for use at the same pace as a low-tech normal day without social media (Web 2.0) usage.

Aside from the added time commitment, researchers identify disadvantages such as deficiencies in the quality and integrity of student work (Dame, 2013; Fewkes & McCabe, 2012; Lin et al., 2013). Social media challenges the traditional models of teaching and learning (Casey & Evans, 2011); instead of information moving from teachers to students, social media creates alternative pathways as students facilitate their own learning (Casey & Evans, 2011). Despite student centred independence (active learners), some educators are concerned about distracting ‘edutainment’ within social media tools (Renfro, 2011). But, if you want a student to read and they are, only online; is there really an issue? Researchers respond and recommend teachers’ focus on positive outcomes of social media use (Fewkes & McCabe, 2012).

Researchers draw attention to privacy concerns as spyware and hacking surfaces via social media use in the classroom (O'Brien & Torres, 2012). There is potential for student information (security) and online activity to lead to adult sites, predators and essentially unlawful

activity causing concern for teachers (Dame, 2013; Lin et al., 2013). It is a global concern for educators' hence Australian teachers are trying private social media tools (smart approach) in their classrooms, such as Ning (Casey & Evans, 2011; Renfro, 2011).

### **Endorsements**

Researchers urge and agree that school administrators must create school-wide guidelines and policies to deal social media in schools (Devitt, 2010; Schachter, 2011; Tomaszewski, 2012). These guidelines and policies need to include the issue of confidentiality, the role of teachers as representatives of the school and school board, and the enforcement practices in the event of a problematic situation (Devitt, 2010; Renfro, 2011). With appropriate guidelines in place, school and school board administrators need to train staff on the types of social media tools being used in the classroom (Freidman & Freidman, 2013). Once teachers are competent in the basic skills necessary to use the technology, it is important that they stay up-to-date with the social media tools being developed and published (Kassorla, 2013). Finally, in order to ensure the appropriate use of social media in the classroom, teachers need to be responsible for monitoring and controlling online activity for their classes (Schachter, 2011). The problem remains constant however; where will the necessary time required to do this be taken from, in an already full and busy school day, semester and year?

We have recent articles to turn to which offer potential guidance and recommendations for stakeholders to ensure students get the most out of social media use in the classroom. Just as administrators must create school-wide guidelines and policies concerning use, teachers need to communicate such guidelines to students at the beginning of the semester via the course syllabus (Kassorla, 2013). Teachers should also establish and communicate a purpose for social media use in their classrooms (Lin et al., 2013). Instead of simply using the technology because it is current, teachers need to consider the logistics behind its implementation. Before using the technology, teachers need to address privacy concerns before they become problems (O'Brien & Torres, 2012). In this sense, teachers must demand a separation between the student's use of social media as entertainment and for academic purposes (Lin et al., 2013). In other words, teachers should have students create entirely separate social media accounts for academic use, which will help to ensure that their individual information remains private while online. Once a class starts using social media tools chosen, it is imperative that teachers model appropriate online behaviour, while scaffolding students as they adjust to the technology (Abe & Nickolas, 2013; Lin et al., 2013). Lastly, teachers need to see the use of social media as a way to improve classroom communication, not as a replacement for past (print/media) modes (Schachter, 2011).

### **Conclusions**

Clearly, there are advantages and disadvantages when using social media in schools. Benefits appear to outweigh drawbacks thus the use of social media continues to seep into curricula and curriculum. Facebook researchers claim that, "the experience with communication technologies that teenagers today possess must be tapped by educators and connected to pedagogy and content in order to address learning objectives in schools" (Fewkes & McCabe, 2012, p. 93). As educators, part of our responsibility is to prepare students for life (European Schoolnet, 2013). For this reason, considering the increasing prominence of social media in today's society, it should also be our responsibility to help students learn how to "leverage social media in a professional context" (Dame, 2013). As Kassorla (2013) explains:

Every educator, from kindergarten to graduate school, should contribute to the important and significant work of teaching students to use online sources and social networks for educational and professional goals. To ignore the technology, to assume that our students already know it because they use it every day, is to participate in educational malpractice (p. 1-2).

Social Media technology is relatively new and growing in all directions globally with insignificant oversight (European Schoolnet, 2013). As a result there is a need to examine and investigate all aspects especially given the implications for students, parents, schools and classrooms (Elavsky et al., 2011; Fewkes & McCabe, 2012). Current researchers recommend the use of larger sample studies as well as the examination of new and alternative social media tools (Fewkes & McCabe, 2012). Prospective researchers should consider specific implications of social media in secondary schools and classrooms by determining the impact of the technology on students. However, with the rapid deployment of new social media tools and the rapidly changing digital landscape, published research is outpaced by technological innovation, change and usage. We need to be digital natives and immerse ourselves within the digital world and not avoid or continue to do what we always have done.

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## Little Red Riding Hood and the (In)Significant Children's Drawings

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**Abstract:** *Little Red Riding Hood has a special place in the classic tales. A tale without fairy, but still stirs the imagination of children and adults worldwide. In this work, we tried to look for Red Riding Hood's image in different products, specially, in the drawings produced by children on the Education Center of Tiradentes University. We question the (in) significance of drawings, children's productions and this proliferation of Little Red Hoods around the world, investigating the importance of children's drawing. This work's objective is to discuss about children's drawings, their (in) significant and "pseudo-narratives" as possibilities for the expansion of the original classic narrative by cultural subjects, as potency for Visual Education.*

**Keywords:** Visual Education, Children's drawings, Red Riding Hood's, Pedagogy and Practice.

### 1. The Little Red Riding Hood narrative and its ramifications

Little Red Hood!

Perhaps the Red Hood is one of the most read and seen character in many different products. Besides book illustrations, cartoons, children's theaters, music CDs, Little Red Riding Hood also appears on t-shirts, as "garden gnomes"; as matrioskas; among many other things.



Image 2: Garden gnomes, common figures in gardens of Brazilian homes.



Image 1 – T-shirt: cultural product

Is Little Red Riding Hood with a dwarf or has Snow White decided to play Little Red Riding Hood? And what is this flamingo doing with those two? Why are they tied?

How many questions can we make with these (in)significant images? No -meaning? (In) significant are also these questions, perhaps this text, but that leads us to talk about this? Out-significant?

This text sought to question the frequent images we see in the various media of mass communication, in daily and drawings made by children in order to think this proliferation of images of classic tales that are applied nowadays and that collaborate to their stay in our lives. We are terming these images as “in-significant” because they have no claim to the artwork, illustration, or anything else deemed “important,” are just the products of mass culture, designed the decor or for personal use and, children's drawings used here, although they are part of a larger project, are considered worthless for many, their destination is the trash.

However, our hypothesis is that there is something powerful in these (in)significant things. Something that requires another kind of relationship from us, different from some policies that seek reflection, critique, transformation from “serious” themes, themes of a certain type of human need. Deep, essential, fundamental. The smallest things, the details, the cracks, the fragments, the plant that grows in a cracking on the wall, these are (in) significant for most people.

When we are looking for these, we think about the powers not only of the (in) significant things, but, also, the powers of the false, which, according to Deleuze (2007) “exists only under the aspect of series of powers, which are always referring and penetrating each other” (p. 164). A chain of Little Red Riding Hood in tees, sculptures in gardens, dolls, graphics, films, in Taboquinhas photographs and in children's drawings of the Unit Education Center.



Image 2 - Reinterpretation matryoshkas with the characters of Little Red Riding Hood



Image 4 - Photo taken in Taboquinhas. Image 5 - Drawing produced by one of the children from Unit Education Center. Both images are from Giovana Scareli's acquis.

Visualities that make us a question: what is the value, the importance of children's drawing? What do parents and teachers do about the huge amount of drawings made by children? I am not arguing here that ALL drawings are to be saved for posterity, but I propose to think about what children imply? What are they expressing? How they (re)create Little Red

Riding Hood and wolves and mothers and grandmothers and forests and other characters who, perchance, “invade” the drawing? The simplicity, the (in)experience makes the drawing set to become a “pseudo-narrative”.

The narrative no longer refers to an ideal of truth to be its truth, but becomes a “pseudo-narrative”, a poem, a narrative that simulates or rather a simulation of the narrative. Objective and subjective images lose their distinction, but also their identity, in favor of a new circuit where are replaced in blocks, or contaminate, or decompose and recompose (Deleuze, 2007, p. 181).

Children create other stories, inventing Little Red Riding Hood and wolves and scenarios and characters that are not seen by almost anyone. Sketches almost (in)visible on a sheet of white A4 paper.



Images 6, 7, and 8 - Drawings produced by children from Unit Education Center. Images are from Giovana Scareli's acquis.

A wolf with a silly face in granny’s bed, could be a (in)significant drawing, however, the graphical representation of the wolf and the angle chosen for this representation are very interesting. The child sees a naive wolf, almost a kitten, looking from the top, as if she were looking at things from above the ceiling. In another drawing, we see a Red Riding Hood all in red who finds a wolf (who also looks silly) in the forest with a tree full of red berries. The scene is very present in illustrations of this tale. Almost always this moment is represented. But we cannot miss the heart above the wolf's head, symbol of love, passion... A Wolf in love for Riding Hood. The last of this small series shows Hood saying goodbye to her mother with the wolf hidden. In another common episode, several moments are condensed in the drawing: the farewell scene between the daughter and the mother, the wolf in the forest, and Grandma's house. But the most interesting is how the child was able to show the distant Grandma's house in an attempt of perspective.

## 2. The ways of this work, or “by the street outside, I'm going so lonely”...

This text is one of the productions made from a larger project titled “The research with images in the educational field: visual education, cultural production and child production” developed by Professor Giovana Scareli, initially by the Graduate Program - Master of Education of Tiradentes University (Unit) and later by the Program Graduate - Master of Education of

Federal University of São João del-Rei (UFSJ). From this large project, other projects were derived from both research as extension, with or without funding.

For performing all these steps of this research served us theoretical support authors who have researched and / or researching the cultural production, graphics, childish drawing, tales, having a multi-referential character involving the areas of Art Education, Psychology, Psychoanalysis, Education and Philosophy basically. These different areas offered in able to analyze and interpret the drawings produced by children and, from that production, thinking the images as evidence pointing to ways of research, which are full of meaning and should be more valued by the school.

For the production of drawings, was created an Extension Project, connected with the research project, entitled “Workshops to read and think”. We have partnered with the Center for Education of the Tiradentes University - Unit. The drawings were produced by the children of this Nucleus in the second half of 2012. There were six meetings with each of the initial grades of elementary school (1st to 4th grade). In classes 1st and 2nd grade we opted fairy tales and the 3rd and 4th grade we opted fables and mythological texts. The productions were made at the end of the meeting and had the following systematic: we organized the class in a circle, the children came and after some initial conversations, Professor Giovana Scareli, read one of the stories selected for that meeting. After reading, was provoked a conversation about history and about some of the thinking skills because our work was an adaptation of the method developed by Mathew Lipman, philosophy for children. After this discussion, we asked children to do a drawing about the story, or about the conversation, or even about what they wanted to draw on that meeting. The drawings were collected and subjected to scan these to obtain a digital file. These graphic materials are all scanned and it's part of the database that we worked in the analysis.

The analysis of graphic productions were made by an adaptation of the documentary method of Ralf Bohnsack (2010) and occurred initially, as follows: after watching the production, chose some stories, whose drawings appeared in the analysis with potential for greater.

While the photo that we used (Image 4), is part of a workshop held with a group of children in 2012 in the district of Taboquinhas, Itacaré / BA (Brazil). The workshop was to tell the story of Little Red Riding Hood and invent, (re)create these characters and scenarios in this district with the help of cameras.

For this article, we use the images they had more dialogue with the theme and chosen for the theoretical, Gilles Deleuze dialogue. Therefore, the choices were for convenience and theoretical predictions are from the field of philosophy, psychology and art education.

### **3. Powers of Child Drawing**

Childlike drawings are ways of self-expression for children, an expressive form that has its vocabulary, a type of visual. The delight of the gesture associates with the pleasure of registration, the satisfaction of leaving their mark, and results in the act of drawing.

Drawing is registering the playful, artistic or scientific means of lines, dots and spots. Hence the design is an efficient means of communication as it expresses ideas graphically.

Individuals from different backgrounds and social values in the design have an indispensable and important tool for communication (Derdyk 1994, p. 239).

Derdyk (1994) talks about the communicative potential of design, in addition to the significant, the child draws to communicate with someone, with their selves, with the world. But this author also states that the act of drawing propels other events that occur together in an indissoluble activity, providing a great walk through the yard of the imaginary. Indeed, the design is an expression of the worldview that each child possesses, because through it the child develops their potential expressing their thoughts.

But these graphic productions, often end up having a need for representation, something figurative, which approximates to the real world and happens according Mèredieu (1991), because the child tries to imitate people, events and things around them. This finding, the influence of the environment on the child and its design also proved the “myth of spontaneity” and explicitly shows the influence of the environment on the child.

Adults have some responsibility for this as they interfere a lot in child development, suggesting, giving examples, and insistently they asking “what's that?” “You're drawing what?” And these questions by adults, according Mèredieu (1991) “is equivalent to that same attitude of trying to understand at any price” (p. 17) which means “an abstract fabric” (p. 17) Sans (1995) tells us that

[...] The child who live their childhood with respect, understanding and creativity will be closer to being an adult with vision can overcome social bigotry of his time, providing conditions not met for human coexistence happen more dignity. And that hope is fostered is necessary to live according to the principles of his playful nature child not being suffocated by the pace of wills adult. (p. 24)

These “influences” or “interference” really happen in schools, especially with kids who start too early, when their school life and the school is more concerned with the “transmission” of content. With time, the child will lose its playfulness and opportunities for expression in different languages, because the important thing is to prepare early for college entrance, ESMS, labor market etc... Adults, especially education professionals and parents are, mostly, depriving children of their own language, their way of authentic expression. “The loss of playfulness in children causes premature aging and atrophy spontaneity” (Sans, 1995, p. 22).



Images 9 and 10 - Drawings produced by children from Unit Education Center. Images are from Giovana Scareli's acquis.

In both drawings, which show the same scene, there is something playful: an open eyed wolf, arms up, “blond hair” and wearing shorts, stops in front of the Red Riding Hood (wanting to scare her?). Beside, a wolf without color extends his arms toward Hood with angry face, also dressed entirely in red. What is funny in this scene is the wolf looking at us, readers/viewers, as well as Riding Hood (a theater, they enact the scene?) Suddenly, fear staged of a wolf that everyone already knows, turns into laughter, in something hilarious. To Moreira (2005) “The possibility of drawing as play, drawing as able to speak, marks the development of children” (p. 26) A Pure drawing joke that breaks with the most common representations and resists explanations of the world.

A child's drawing is an overall activity, comprising a set of their capabilities and needs. When drawing, the child expresses the way they feel. The development of creative potential in children, whatever the type of activity which it is expressed, is essential to its innate growth cycle. Similarly, the conditions for their full growth (emotional, psychological, physical, cognitive) cannot be static.

The scrawl is not simply a sensory-motor activity, uncompromising and unintelligible. Behind this apparent “uselessness” contained in the act of doodling are latent in existential secrets, emotional confidences, communication needs (Derdyk 2010, p. 50).

The (un) usefulness of drawing and (in)significance of children's drawings are part of everyday life of the child. Cleft of work, of the content, of the studies in order to draw with pleasure, with the playfulness of picking up a pencil and doodle something on the wall, on the table, on the bathroom door. Infant transgressions that abandoned little by little to become future becoming, as when a quick gesture, a smile or when we paint the tooth of a person in a picture of a magazine.

The child scribbles the pleasure of scribbling, gesturing, of asserting. The design that arises is a engine, organic, biological, rhythmic. When you slide the pencil on the paper, the lines appear. When the hand stops, the lines do not appear. Appear, disappear. The permanence of the line on the paper is invested with magic and it stimulates the wish to prolong this pleasure, which means an intense, invaluable inner activity for us adults. It is a self-

generated pleasure and warmth. The authorship of magic depends exclusively on the child (Derdyk 2010, p. 52).



Images 10 and 11 - Drawings produced by children from Unit Education Center. Images are from Giovana Scareli's acquis.

Children scribble, have a thousand ideas to draw, but not always their hands know how to put on paper the thought, then they scratch, erase, do it again and again until they leave it as it is, or until knead the sheet and start all over again. It is a mixture of desire and frustration that the child experiences when drawing.

The experiences of workshops with children aged six to ten years old makes clear that the children are observers; they examine the situations and retain information very easily. When they draw, they select some aspect of their lives that they see as important history.

### **Final considerations**

The main hypothesis of this text was to discuss that there is something potent in the (in) significance things. Something that requires us other relationship, other than proposing policies that seek reflection, critique, transformation from “serious”, expensive, themes of a particular type of human need. Drawing builds an overall activity, in which the child expresses the way they feel existence. Whatever the type of activity in which it is expressed, the development of creative potential in children is essential to their innate growth cycle. Children's drawings remind us about visualities that make us question the importance of children's drawing and also suggest us to think about what children inscribe, what they express and how they (re) create the characters. The potential is to glimpse the apparent (un) use of the tales, the (in) significance of childish things, creative reproducibility of Red Riding Hoods and wolves. We invent and (re) invent this story and replicated its characters in narratives contaminated with infant experiences, stories of classic tales and interference of various orders.

The (in)significance that many adults give to children's drawings, demonstrates the ignorance around this expressive mode. It's not necessary to psychologize the drawings, or our relationships, much less children. But to create moments for creation, creations talk about these actions are important because through drawing children are organizing their knowledge, their

understanding of the world and of herself, establishing a relationship with each other and / or with the world and / or herself through these works (in) significant.

What we seek with designs chosen to be part of this text is to present the various types of drawing on the same story. Infant graphical expressions that were made from engagement with the story, with the materials they had available and the skill that each had, according to their ages. We seek to show undergraduate students and teachers, in that seemingly insignificant things can be powers of thought and creation.



Images 12 and 13 - Drawings produced by children from Unit Education Center. Images are from Giovana Scareli's acquis.

Thousands of Little Red Riding Hoods (of all kinds, even a transvestite Riding Hood?) leave every day from their mothers homes, meet the wolves halfway, then meet them again at Grandma's house and other numerous outcomes happen: with the hunter, with the Lumberjack, without other characters ... Little Red Riding Hood from Taboquinhas, Aracaju, the Brothers Grimm's, Charles Perrault's... In the (un) apparent use of the tales, in the (un) significance of childish things, in the creative reproducibility of Little Red Riding Hood and the wolf around the world, we invent and (re) invent this story and its characters. It's the power of the false in replicating wolves and Little Red Riding Hood. Narratives are full with childhood experiences, the stories of classic tales and specially plain of their (mis) understandings of the world. What we see in these works is all this and many other things... interference from different orders to produce (in) significant meanings in everyday worlds.

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## **Upgrading Education of the Labour-Force in Thailand by Distance Education System: The Case of Unskilled-Workers**

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**Abstract:** *In Thailand, approximately 70 percent of workers have only secondary education or lower. The government is anxious to solve this problem as shown in the short and long term policies. With the advantages of distance education, the author believes that another approach to solve this problem should be adopted. As a result, this study was carried out to identify opportunity, problems and needs of unskilled workers in order to develop a curriculum and distance learning packages for upgrading their education. The research sample consisted of 1000 unskilled workers from 20 factories across the country, 100 factory administrators and 100 personnel of 5 related organizations. Research instruments were questionnaires, interview forms and an achievement test. The main findings showed that the unskilled workers expressed needs at the high level to obtain more knowledge and skills. The five distance learning packages developed were successful in upgrading knowledge and skills of these workers.*

**Keywords:** Unskilled workers in Thailand, Distance education

### **Introduction**

In Thailand, the National Education Act promulgated in 1999 has proposed lifelong education as the principle of organizing the whole education system of the country. The National Education Development Plan 2009-2016 (Office of the National Education Commission, 2009) also focuses on lifelong learning for all. Moreover, the National Social and Economic Development Plan since 2002 has focused on human resource development. According to the above mentioned acts and plans, human resource development through lifelong learning is the main goal. The labour force is one of the main target groups of human resource who strongly need development. This is because the labour force has direct impacts upon economic development of the country.

The number of workers has increased year by year. For example: in 2007, there were about 37 million workers out of a total population of 65.9 million; in 2010, there were about 38.6 million workers out of the total population of 67.2 million; and 2012, there were about 39.4 million workers out of a total population of 68.1 million. (Office of National Statistics, 2007, 2010, 2012). But most of them still had a low educational background. For example approximately 70 percent of them still have only lower secondary education or lower in the year 2010 and it decreased to 69.8 percent in the year 2011 (Office of National Statistics, 2010, 2011). Moreover, a number of them did not have any vocational knowledge background before entering the labour market. Once they entered the labour market, they had little opportunity to attend any kind of vocational training or obtain any kind of education because of their tight work schedules. The research on “Guidelines for preparing young women to enter the labour market” by Sungsi and Piratchapan (2000) has found that about 77 percent of women workers had no vocational background before entering the labour market. These young women showed a high demand to obtain related knowledge both before and during work in the labour market. They stated that

related knowledge could help people who were about to enter labour market to get good jobs and could help those who were already in the labour market to get better positions and earn more incomes. This means that low education and no vocational knowledge background were found in both groups, those before entering and those who are already in the labour market. The number of low educational background workers appears to increase year after year. The study of Nakeerak (2006) on “The needs of industries in Surat-Thani province for workforce development” found that all of the industry administrators in Surat-Thani province expressed high demand for upgrading knowledge and skill of their workers. Moreover, the study of Thailand Development Research Institute (2011) on “The readiness of Thai manpower for entering the free trade period under the ASEAN Economic Community framework” found that Thailand still lacked qualified manpower. Apart from that, new workers entered the labour market without working skill and foreign language skill which was necessary for communication in their work.

The government is very concerned about this situation as reflected in the short and long term National Plans and Policies. For example, the government policy which was issued in 2005 has one item which related to the labour force (Office of the Prime Minister, 2005). It was stated that in the year 2008, approximately 50 percent of the workers should have at least secondary education. Moreover, the 9<sup>th</sup> National Economic and Social Development Plan 2002-2006 and the 10<sup>th</sup> National Economic and Social Development Plan 2007-2011 have continuously focused on human development which includes upgrading knowledge and skills of the labour force. (Office of the National Social and Economic Development Commission, 2006, 2007).

According to these policies, all related government and non-government agencies including universities are encouraged to take part in solving this problem. Sukhothai Thammathirat Open University, as one of the higher education institutions, would like to take part in solving this problem. The university employs distance education system to provide education for all throughout the country. Distance education allows people from every part of the country, regardless of age, gender and occupations to receive equal educational opportunity. (Nanda, 1998). It allows people who do not have time to travel and to study in classroom to have chance for education. (Holmberg, 1986). Learners are free to study by themselves through various kinds of media at any time and any place that suit their convenience. (Keegan, 1990; Mantyle & Gividen, 1997). With the advantages of distance education system, especially in the aspect of being able to provide educational opportunity to the mass and allowing individual study at any time and place which suit his/her convenience, it should be another alternative to solve this problem. Through the distance education system, the workers throughout the country can upgrade their knowledge and skills without having to leave their jobs. Therefore, this study was carried out in order to identify appropriate distance learning packages to upgrade the knowledge and skills of these unskilled workers.

### **Objectives of the study**

This study has the following objectives:

- 1) To study the opportunity, problems faced and needs of the unskilled workers for upgrading their knowledge and skills;
- 2) To develop the curriculum and the distance learning packages for upgrading knowledge and skills of the unskilled workers; and
- 3) To evaluate the developed learning packages.

## **Method of the study**

The study was carried out in 3 steps.

Step 1. Studying the opportunity, problems faced and needs of the unskilled workers for upgrading knowledge and skills.

The sample comprised 3 groups of people. They were the unskilled workers, the factory administrators and staff of concerned agencies as follows: 1) 1,000 unskilled workers who were randomly selected from 20 factories in 10 provinces across the country. Two factories were randomly selected from each province and then 50 unskilled workers were randomly selected from each factory; 2) 100 factory administrators who were randomly selected from the 20 factories, 5 samples from each factory; and 3) 100 staff who were purposively selected from 10 concerned agencies, 10 from each, in the 10 provinces throughout the country. (These concerned agencies responsible for providing different kinds of support to the workers such as knowledge and skills training, social welfare, etc.). The research instruments were questionnaires for the unskilled workers and the interview forms for the factory administrators and for staff of the concerned agencies. Quantitative data obtained were analyzed by frequency, percentage, mean, and the qualitative data were analyzed by content analysis.

Step 2. Developing the curriculum and developing the distance learning packages for upgrading knowledge and skills of the unskilled workers.

For the curriculum, the data obtained from every group of the sample in step 1 were analyzed and then synthesized to construct a draft of the curriculum which was composed of 8 subjects. Then the curriculum was proposed to a group of 20 purposively selected experts in the field of labour and distance education in a seminar for comments and suggestions. For the distance learning packages, after the curriculum was revised according to suggestions of the experts, 5 out of 8 subjects in the curriculum were selected for developing 5 distance learning packages. Then the 5 learning packages were proposed to the 20 experts through a seminar again for comments and suggestions. Each learning package was composed of a text book and a VCD.

Step 3. Evaluating the learning packages.

The sample. The researcher deliberately selected two factories out of the twenty sampled factories. Then 90 and 60 of unskilled workers were randomly selected from the first and the second factory respectively in order to organize them with equal numbers into five groups, 30 each. Group 1, 2, 3, 4 and 5 were assigned to study the 1, 2, 3, 4 and 5 learning packages respectively. Before studying, each sample in every group was assigned to do the pre-test. After that, each of them was given the text of the subject in his/her learning package to study on his/her own for approximately 1 month. Then the participants came back in five groups again. Each group was assigned to watch the VCD of their learning package. At the end, they were assigned to do the post-test. The pre-test and the post-test of each subject were composed of twenty multiple choice test items to assess knowledge and understanding of the learners about that subject. Apart from the post-test, each sample in each group was also given a questionnaire

to assess their opinions towards both kind of media, the printed media (the text) and the VCD in their learning package.

Data analysis. The results of the pre and post test were compared by using t-test. The opinions of the sample towards the two kinds of media were analysed by frequency, percentage, mean, and content analysis.

## **Results of the Study**

The main findings of the study were as follows:

1. Opportunity and problems faced by the unskilled workers in upgrading knowledge and skills.

The unskilled workers stated that they had very limited chance to gain more knowledge and skills. The main reason that most of them mentioned was tightly work schedules (74%) followed by family responsibility (20%). They used to obtain knowledge about safety at work from their factories.

The factory administrators stated that they provided about one to three times training per year for their workers. The content focused mostly on safety at work, knowledge and skills for work, and health care for work.

Staff of concerned agencies stated that their agencies provided both general knowledge and vocational knowledge to different groups of workers mostly in the form of short course training. The problems faced included: training time not matching the workers free time; the workers having tight work schedules; and the factories not providing them flexible time.

2. Needs for upgrading knowledge and skills of the unskilled workers.

High percentage of the unskilled workers (43.9%) expressed high level of need while 39.1% of them expressed highest level of need to gain more knowledge and skills. The reasons they gave for acquiring more knowledge and skills were: getting more pay (43.8%); furthering education (18.5%); and changing job (13.4%). Types of knowledge and skills required were in 3 main groups:

(1) knowledge and skills about occupations. They included home economics (49.9%), computer (44.3%), languages (31.2%) and industrial work (30.8%);

(2) knowledge and skills useful for work. They included safety in work (48%) and self-development (44%);

(3) knowledge and skills for quality of life development. These included living by following the principle of sufficiency economy (45%). For method of obtaining knowledge, they preferred self-study through media together with teaching by teachers sometimes. For media, they preferred mixed media most (46.7%), followed by television, VCD and printed media respectively. Place preferred for study most was their own factories. Period of time most convenient for study was the week-end (44.9%) and in the evening of the week-day (24.2%). Supports required from their factories were allowing workers to attend training (66.5%) and making work schedules more flexible (49%).

The factory administrators agreed that the unskilled workers need to be upgraded their knowledge and skills with the following reasons: to have knowledge and skills matched with the present jobs (84.7%) and to obtain more knowledge and experience (80.5%). They suggested that knowledge and skills which should be provided for the unskilled workers most was industrial work (57.1%). Next were: computer skill (44.2%), languages (39%), home economic and

commerce respectively. For knowledge and skills useful for work, the administrators proposed safety in work (71.4%), health for work (62.3%), skill for using modern instruments (59.7%), human relationship and self development. For knowledge and skills for quality of life development, most of them suggested living by following the principle of sufficiency economy (83.1%).

The staff of the concerned agencies suggested to propose knowledge about how to work effectively in the labour market most. Next was knowledge and skills required by each type of occupation. They also suggested that the method of transferring knowledge and skills to workers should be in the form of self-study through media most (58.1%).

### 3. The developed curriculum and distance learning packages.

For the curriculum, after synthesizing all data obtained from the unskilled workers, the factory administrators and the staff of the concerned agencies, a draft of the curriculum for upgrading knowledge and skills of the unskilled workers was constructed. Then it was revised according to comments and suggestions of the twenty experts through a seminar. The final version of the curriculum was composed of eight subjects. They were : sufficiency economy for workers; safety and health in work; self development for progress in work; computer skill; worker's rights and roles and social welfare for workers; communication and computing skills for work; foreign languages (English, Chinese, Japanese and Korean); and knowledge and skill for using modern instruments. In the curriculum, each subject had the followings details: objectives, course description, scope of contents, learning activities, learning media, period of study (30-35 hours), and evaluation activities.

For the learning packages, 5 subjects, the contents of which were highly required and rarely found available in any form of media, were selected to develop as 5 distance learning packages. They were:

- (1) sufficiency economy for workers;
- (2) safety and health in work;
- (3) self development for progress in work;
- (4) worker's rights and roles and social welfare for workers; and
- (5) communication and computing skills for work.

Each distance learning package was composed of (1) a manual for using the package, (2) a pre-test and a post-test, (3) a textbook which contains complete contents of that subject, and (4) a VCD which contains three of ten minutes play series for fulfilling additional experiences related to the contents for the learners.

4. Evaluation of the learning packages. The study showed that after studying by using the distance learning packages, the post-test scores of the workers in every group were significantly higher than the pre-test scores. Moreover, most of them agreed that the contents, the presentation style, exercise activities of each topic and the format of the textbook and the VCD in every learning package were at the high satisfaction level.

## **Conclusion and Implication for the Future**

Upgrading educational background and competency of the unskilled workers is a challenging task for the departments responsible for the labour-force in Thailand. A large number of the unskilled workers still have a low educational background. It is quite difficult for

them to upgrade their education by classroom learning because their work schedules is too tight. Therefore, the number of workers who have higher educational background increased quite slowly year by year. This study was aimed at making use of the advantages of distance education for upgrading knowledge and skills of the unskilled workers. This is because distance education allows the unskilled workers who have no free time to study in classroom to obtain educational opportunity without having to leave their jobs. They can study on their own anywhere and anytime. Moreover, a large number of them can upgrade their knowledge at the same time. According to this study, five distance learning packages containing knowledge and skills required by the unskilled workers were developed. The result of evaluating the learning packages with the 150 unskilled workers showed that the learning packages were successful in upgrading knowledge and skills of these workers. This means that distance education is another approach which can be employed for upgrading education of low qualified workers. The researcher believes that with appropriately employed these learning packages, they could significantly help the unskilled workers throughout the country to have adequate knowledge and skills suitable for their jobs. Moreover, the results of this study can be used as a guideline for the provision of education to upgrade knowledge and skills of the other groups of workers who were already in the labour market. It can also help to prepare the new workers to have suitable knowledge and skills before entering the labour market. It allows the workers to have lifelong learning opportunity without having to leave their jobs. It will also in the long run contribute to the economic development of the country as a whole.

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## *A Song of Ice and Fire as a Pedagogical Resource*

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**Abstract:** *In this paper, from the analysis of the concepts from convergence culture, transmedia storytelling, interactivity and collaboration we aim to elaborate the content of discipline “Digital Media Lab II”, that involves the concepts of convergence culture and transmedia storytelling, from the narrative of ‘A Song of Ice and Fire’. Considering the success of the franchise and the fact of it being present in the daily life of the students, we intend to take the creative universe of ‘A Song of Ice and Fire’ as a pedagogical resource. The elements of the franchise, as the noble Houses of Westeros, the territories, among others will be used to introduce the concepts to students. At the same time they will be encourage to interact with the narrative and collaboratively, construct exercises of transmediation to getting a full understanding of the concepts.*

**Keywords:** Transmedia Storytelling; ‘A song of ice and fire’; Methodology; Pedagogical resource

### **Introduction**

It is undeniable that we are living at a time when information flow is becoming more and more intense. Such fact indicates a reflection not only of the potential demonstrated by Information and Communications Technology (ICT), especially enhanced with the advent of the internet, but also of the change in the communication paradigm. In this sense, the classic model of communication, which used to require a producer/transmitter, a consumer/receiver and an information flow which went a single way – transmitter-receiver, has reconfigured into a process of message dissemination whose flow moves both ways. In this context rise the *prosumers*, a term used by Alvin Toffler in his book *The Third Wave* (1980) to refer to the characters that result from the “union” of the roles of producers and receivers.

Nevertheless, in order to understand how the use of the mentioned term has become relevant within the current communicational process, it is necessary to look into the scenario in which the information flow has been taking place, and when we do that, a great deal of our attention turns to the world wide web. Since the creation of the first browser in 1991 (by Tim Beners-Lee), and of the first blog in 1993 (by Justin Hall), the internet had already demonstrated its main purpose: to connect. The web represented a breakthrough in communications, “a means that would become whatever we'd like it to be: one to one, one to many or many to many” (Gillmor, 2005, p. 31-32)<sup>2</sup>. In fact, its role has evolved from a technological tool to an important element from a cultural point of view. Discussing this perspective, Pierre Lévy (2010) employs two terms: cyberspace and cyberculture. The former defines the Web as a space where people from all over the world get connected through computers, whereas latter refers to the “[...] set of

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<sup>2</sup> Own translation.

(material and intellectual) techniques, practices, attitudes, ways of thinking and values that develop together with the growth of cyberspace.” (Lévy, 2010, p.17)<sup>3</sup>

In this manner, the World Wide Web is getting more and more constant in the daily lives of people everywhere in the world. It has become part of the routine of millions of people around the globe. It has enabled us to go shopping, do scientific research, watch movies, play games or simply chat with friends, all online. For this reason, it is easily noticeable that it has become relevant in a variety of fields such as economy, entertainment, politics, education and communication. Under the perspective of communication we have clearly been witnessing what Marshall McLuhan called “global village” in 1964. In other words, an interconnected world, where the electronic means of mass communication take a crucial role in the process of integration. That is why nowadays it is almost impossible to define all possible kinds of interaction enabled by the internet.

The analysis and understanding of the presented conjecture, in which the “global village” (McLuhan, 1964) is a reality and cyberspace and cyberculture are part of the daily lives of millions of people around the world, lead us to another fundamental concept to understand the process of content production and transmission in the present day. Furthermore, such analysis enlightens the understanding of who the prosumers are and what their role is in the present context. What is being dealt here is a “culture of convergence” (Jenkins, 2008), which aims to depict and understand the current context in which individuals are producing and consuming information from three presumptions: the convergence of means of communication, collective intelligence and participative culture. This triad makes for a thorough comprehension of the concept of participative culture proposed by Jenkins (2008).

The first presumption effectively refers to the technological sphere of convergence. To Santaella (2004), the convergence of mediums may be understood as the “[...] union of several technological sectors and several devices which used to be individual and have now been merged into a single device, the computer [...]”<sup>4</sup> *Smartphones*, for instance, are a very common example to illustrate what Santaella (2004) states. They enable us to have, at our disposal and in a single device, functions such as: telephone services, internet access, alarm clock, calculator, diary, calendar, camera and music player, to name a few. However, it is important to highlight that the technological dimension of convergence is only a part of the convergence culture. It is a relevant part, as it has allowed changes in the way consumption and production of content take place – it has become faster, easier and mobile.

As for the second one, we have collective intelligence, a term that Jenkins (2008) borrowed from Pierre Lévy. It synthesizes the capacity that the groups gathered in the cyberspace have to incorporate and enhance knowledge, thereby improving the level of specialization and understanding about a given theme. This process is consolidated through debates and the collaboration of all members. In this respect, collective intelligence, according to Pierre Lévy (2007), refers to the exchange of information and experiences among people, where knowledge connects with experience and intelligence. This knowledge is therefore deemed as a product of the interaction among individuals and groups with a common interest.

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<sup>3</sup> Own translation.

<sup>4</sup> Own translation.

At last, the third presumption, participative culture, is defined by Jenkins (2008, p. 378) as “a culture in which fans and other consumers are invited to actively participate in the creation and circulation of new content.”<sup>5</sup> Regarding such concept, Mazetti (2009) reminds that participative culture does not mean to equalize the power of producers and consumers. Nevertheless, he emphasizes that the latter now plays an active role and with freedom to collaborate in the construction of media products, as long as this freedom is in accordance with the objectives of the owners of the original stories. Under this perspective, it is important to observe that, although such condition seems to limit participation and collaboration, it has been noticed that face to face with the present consumers and their ability to judge, reject and produce content, media producers have been searching for alternatives of interaction with their audience so that they may be indeed “touched” by the story/message. Encouragement to participation and collaboration has therefore been taken into account as a strategy.

In this regard, considering the aspects involved in the three presumptions above, the culture of convergence presents itself as a set of transformations in many levels as it encompasses technology, information, consumers, corporations and society as a whole. Jenkins (2008) states that this convergence is attributed to

[...] the flow of content through multiple media platforms, the cooperation between multiple media industries, and the migratory behavior of media audiences who will go almost anywhere in search of the kinds of entertainment experiences they want.

Convergence is a word that manages to describe technological, industrial, cultural and social changes depending on who’s speaking and what they think they are talking about. (Jenkins, 2008, p. 2-3)

That being said, it is evident that the technological advances exert a strong influence on society's daily lives. Means of communication are increasingly becoming more essential cultural tools, and connectivity offers new ways of communicating, teaching and learning. Strategies of content distribution and contemporary languages get individuals in touch with media contents distributed in several platforms and invite them to participate and collaborate with them. Consequently, the scenario where *prosumers* began to act starts to consolidate. They play a role which is not limited to consumption. In fact, they take part in participative culture and collective intelligence. Anchored on convergence, they share, collaborate and interact with content, thus becoming, to a certain extent, both transmitter and producer.

Having in mind the process of content and information production within the convergence spectrum, another aspect starts to demonstrate relevance. Taking into account that all of us have at least one type of media preference – whether it is cinema, literature or television, what would happen if this media received a continuation in another platform? Would you follow it? What if the most intimate past of your favorite character were narrated through another media and at the same time the story's end moved to a different platform? Would it be at least interesting? This is an example of convergence and it nicely illustrates a concept that finds a fertile terrain to develop in the transmedia storytelling environment, a resource that has increasingly been considered as a way to seduce individuals and sell products.

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<sup>5</sup> Own translation.

## 1. Transmedia Storytelling

Geek, gamer, otaku, or simply “fan” are some of the adjectives used to identify followers of a certain kind of media. They may be consumers and collectors, who are able to devour a book in a single night, or spend hours in front of a computer screen to conclude all the missions in a game. They are individuals of all ages, social classes and gender who attribute a sentimental value to a trademark, character or media – common people of the contemporary world. The combination of such profile and the multimedia environment we live in constitutes a fruitful scenario for the transmedia storytelling e, a flexible narrative that presents itself in varied platforms and expands its universe for each new media it appears in.

In the early 90s, Marsha Kinder used the term “transmedia intertextuality” to describe works where characters would “appear” in multiple media platforms. Still, in 2009, in his book *Convergence Culture*, media theorist Henry Jenkins reformulated Kinder's term with the objective of describing “strongly integrated narratives”<sup>6</sup> (Philips, 2012, p.14). In Jenkins (2008) words,

Transmedia storytelling is the art of world making. To fully experience any fictional world, consumers must assume the role of hunters and gatherers, chasing down bits of the story across media channels, comparing notes whit each other via online discussion groups, and collaborating to ensure that a richer entertainment experience. (Jenkins, 2008, p. 21)

Considering Jenkins' concept (2009a), it is relevant to bring hypertextuality to light among one of the most noticeable interactive processes in the transmedia storytellings. On the other hand, the biggest source of transmediation is in intertextuality, which, according to Bakhtin, (1986) is the dialogue among countless texts. That means that transmedia storytelling is a universe created through several kinds of media, and therefore expands individuals' knowledge concerning the content of a given work and enables them to try on new fictional experiences. It can be said that this is how media franchises emerge. These are the extension of all fictional content related to a trademark. In this regard, Giovagnoli (2011) believes that, when properly performed, a story's power grows to the point of attracting new fans and expanding the narrative.

According to Giovagnoli (2011), when shared, a story carries in itself narrative elements which work as amplifiers of meaning in the many media of the communicative system. It is like some kind of energy which is distributed, mixed and, depending on the presence of certain ingredients, may explode at any moment. “I call this the Nuclear Power of the Story: a strength able to contain the whole energy of matter in its core and release it, if not con-trolled, as emotions and the magic of the imagination in our lives” (Giovagnoli, 2011, p. 59). From there, it is possible to perceive the process of superposition and the complementarity of the many facets of information, something that a single receiver acquires as he moves from one type of media to another: from listener to spectator, from spectator to reader. In other words, this takes place while he gradually form his opinion about reality from multiple sources. (Santaella, 1996)

In this respect, considering the construction of transmedia storytelling, Carlos A. Scolari (2013, p. 45) accents the importance of planning in the process of creation. According to him, producers/writers must have transmedia in mind from the very first moment in which a narrative

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<sup>6</sup> Own translation.

universe is created, in addition he emphasizes two coordinates to define transmedia storytelling: “1) expansion of the story through several medias, and 2) users collaboration in such process of expansion”. Moreover, the task of producing for individuals who are not satisfied with a single type of content is not only relevant but also a motivating factor throughout the process of development of a transmedia storytelling. It may be said that, with the increase of the amount of content offered on the internet, the audience has been searching for information and entertainment in more than one platform (sometimes even simultaneously), and the strategy of transmedia storytelling has been catering for that.

In this scenario, it is worth noting that both hypertext and hypermedia stand out as interactive processes that enable the personal choice of different paths for having new experiences. These are liquid, fluid, participative and autonomous environments. Corroborating Santaella's (1996) and Bauman's (2003) perspectives, such environments allow for a reading without beginning, middle or end, offering the possibility of “looking at” the content through distinct means. From this point, hypertextual narrative is defined as a free reading mode in which the user decides how to do. Therefore, thinking about the multiple possibilities of going through content and looking to sustain the individual's autonomy to choose, when a transmedia storytelling is built, it is paramount to be aware of the seven principles proposed by Jenkins (2009a). To him, such principles are crucial for a narrative disseminated by different means to be considered transmedia storytelling. They are: *spreadability vs. drillability, continuity vs. multiplicity, immersion vs. extractability, worldbuilding, seriality, subjectivity and performance.*

As for spreadability vs. drillability, Jenkins (2009a) affirms that the former refers to the capacity a story has to engage the audience, making the narrative to be expanded by them thus increasing the economic and cultural capitals of the project. The latter regards the study of different audiences who may consume the narrative, which aims at finding the one that has the best characteristics for this engagement to take place. Continuity in turn brings along the need for the narrative universe to possess common elements in the different ways the media involved unravels a project. That is why a character or event which is present in more than one type of media needs to have their characteristics finely defined and equal in these different platforms so that the audience may identify the coherence and respect to the original narrative (the main narrative, which originates the developments and the other narratives).

On the other hand, according to Jenkins (2009a), in spite of the need for keeping the fundamental basis of the original story, multiplicity will approach the uncountable existing resources so as to build more elaborate developments and relatively distant from the original narrative, such as transporting characters to other scenarios or ages. As for immersion, it refers to the construction of a narrative which allows the user to become part of its content, that is, it enables the audience to feel active in the story. Intimately linked to immersion is extractability. It makes possible for narrative elements to be transported to people's daily lives, as in the creation of licensed products (which do not constitute or expand the narrative, but in fact reinforce it and make it more present in the consumer's daily life).

In relation to wordbuilding, Jenkins (2009b) points out that it is intimately connected to the concepts of immersion and extractability as it makes use of an array of elements. These include, for instance, the wardrobe and vocabulary of the characters that compose a story in order to transform this set into something unique, something that identifies the universe in

question and makes it different from other stories and universes. Seriality in its turn is defined as the resulting hypertextual network of the main narrative and the narratives that unfold from it. Therefore seriality opposes to the linearity of the projects which involve a single kind of media and of narrative.

The penultimate principle proposed by Jenkins (2009b) is subjectivity. The multiple points of view, concepts and characters involved result in innumerable possibilities of transmedia extensions. For the author, these extensions have three basic functions within the project: exploring dimensions of the original fictional world which haven't been dealt with in sufficient depth, extending the timeline of the narrative universe and showing the stories of secondary characters in the main narrative.

We finally arrive at the last of the seven principles: performance. It is related to the fans of the narrative universe, engaged consumers and considered by Jenkins (2009b) as vital to disseminate stories, defend them, participate in their constructions, and in cases of more extreme engagements, perpetuate the story that the project involves. The fans, or followers, are then chief pieces of in the process of popularization of a narrative. They are the ones responsible for the creation of blogs and Facebook and Google+ groups and pages. Such interaction continues and brings about what Jenkins (2008) calls “emotional capital” or “lovemarks”, in other words, media which have a strong relationship with their consumers.

Fans engage in a series of practical social activities surrounding the media franchise, going beyond the role of mere collectors of media products (CDs, videos, books etc.) and carrying on regular conversations with other individuals whose only common connection is the fact that they are fans (Thompson, 1995). In Thompson's “The Media and Modernity” (1995), he asserts that while fans are dependent on the available products, they transform and incorporate these products in a symbolic universe which is build and singly inhabited by their peers.

Among the most dedicated fans, this transformative process can become extremely elaborate, resulting in the creation of whole new genres of books, videos, artwork, etc., which, while parasitic on the original media products, often move beyond them. (Thompson, 1995, p. 223)

Based on this presumption, the use of transmedia storytelling in the academic environment may be seen through the perspective that students, who are at the same time fans, have the potential to get a different kind of motivation to learn a wide range of subjects with this kind of collaborative construction of knowledge. In such process, the teacher has the job of guiding students in their first textual productions. Not as a proofreader, but as a critical reader of the content produced. Additionally, the teacher should foster debates and discussions and foster the creation of new narrative developments. As a result, students, as digitally immerse individuals, tend to feel attracted by the process of creation and consumption of digital stories (Alexander, 2011). Nalin Sharda (2009) says that the educational potential of working with transmedia storytelling lies in the possibility of merging pedagogical content and what is experienced by the students, such as collaborative work, information sharing and interaction.

## **2. The narrative of ‘A Song of Ice and Fire’**

‘A Song of Ice and Fire’ is a series of epic fantasy books by writer George R. R. Martin that started being developed in 1991, and whose first volume was released in 1996. Nowadays

the series has five published books and at least two more are expected to be released. In the construction of its narrative there are three main arguments that get increasingly weaved throughout the books: the chronicle of a power struggle for the Iron Throne involving many families and, later, for the control of the Seven Kingdoms; the rising threat of supernatural creatures known as Others, who live beyond an immense wall of ice in the North; and the ambition of Daenerys Targaryen, the exiled daughter of a king murdered thirteen years before, and who is about to return to her homeland and reclaim the iron throne which is hers by 'right'.

The books narrate the events in the Seven Kingdoms, where a war for the Iron Throne is fought. The story unfolds mostly in the continent of Westeros, but part of it also takes place in an extensive land in the East called Essos. The narrative constitutes a rich universe which goes beyond not only the borders of a geographic area but also the definition of specific cultural elements in each territory, the creation of dialects and even an extinct language.

In order to understand the narrative, the first step is to understand how the continent of Westeros has been unified. In the past, seven independent kingdoms have been taken, one by one, and later unified by Aegon, the Conqueror and his sisters/wives Rhaenya and Visenya. The three of them belonged to House Targaryen, which was united with the dragons. After the Kingdoms have been conquered, Aegon used his enemies' swords to build the "Iron Throne". House Targaryen unstoppably ruled Westeros for almost three centuries, until a rebellion put an end to its hegemony. In this process, King Aerys II, known as the "Mad King" was murdered by Sir Jaime Lannister, member of the royal guard, and Robert Baratheon took the Throne, declaring himself king.

In this fashion, the novels which start a bit more than thirteen years after this event will dedicate to unravel the three main plots presented above. As for the first plot, it is about the conspiracy and war for the throne. Set in the Seven Kingdoms, it narrates the struggle between rival couples after King Robert's death. The throne is claimed by his heir, Joffrey, who is supported by the influential family of his mother, the Lannisters. However, Lord Eddard Stark, childhood friend and main advisor of Robert, finds out that Joffrey and his other two brothers are illegitimate sons of the king and that the throne belongs, by right, to Robert's middle brother Stannis Baratheon. So as to protect his secret and his brother, who was responsible for the king's death, the queen orders the prison and execution of Stark, accusing him of having murdered Robert. Furthermore, Renly, Stannis Baratheon's youngest brother, with the support of House Tyrell, also reclaims the crown, ignoring the order of succession. While the battle of the claimers for the Iron Throne advances, Robb Stark, Lord Eddard's heir, is proclaimed king of the North with the support of his vassals and of the Tullys, where his mother Catelyn resided.

The second plot brings in its center creatures known as Other, who live beyond the ice wall in the north of the Seven Kingdoms. The over-700-foot-high construction is guarded by members of the Night's Watch, a group who permanently keeps Westeros under surveillance to defend it from the Others, an enemy considered to be extinct for a long time, and from the wildings. Nonetheless, after the Rangers have been murdered beyond the wall, suspicions that the Others had returned reappeared. Little has been approached about this mystery throughout the five released so far, therefore this part of the plot is still keeping readers and fans in suspense.

The third and last plot follows brothers Viserys and Daenerys, the only living descendants of the Targaryen Dynasty, who have been exiled beyond the Narrow Sea. There, Viserys marries his youngest sister, Daenerys, and Khal Drogo, military leader of thousands of nomad warriors called dothraki. Viserys' goal is to use his sister's marriage as leverage to start his own army and reclaim the Iron Throne. However, after a series of events, Viserys is murdered by Drogo, who also dies afterwards. As a result of Khal Drogo's death, his army dissolves and less than a hundred of people continue following Daenerys. But the following event changes that fact. Keeping the tradition of her husband's people, Daenerys erects a funeral pyre and places there all the good she had received when they got married. Among these are three dragon eggs, an extinct creature. In a kind of trance, the last Targaryen enters the flames, but to everyone's surprise she comes out unharmed and carrying three small dragons. From that moment, the Dothraki who were present little by little pledged faithfulness to her and she begins her journey to reclaim the Iron Throne.

Going beyond the narrative universe of books, it is worth highlighting that *A song of ice and fire* has overflowed in the printed pages and earned a television series produced and broadcasted by HBO, which will start its fourth season. Also, it has earned two novels (a third one also about to be launched), and also a few games, including an RPG.

### 3. Educational Possibilities

As stated by Pierre Lévy (1995),  
[...] knowledge is no longer a static pyramid, it grows and travels in a wide mobile network of laboratories, research centers, libraries, databanks, men, technical procedures, medias, measuring and recording devices, a network that extends between humans and non-humans, associating molecules and social groups, electrons and institutions. (Lévy, 1995, p. 179)<sup>7</sup>

According to Siemens (2004, as cited in Renó; Versuti; Renó, 2012, p. 59), these characteristics conform to the principles of connectivism. Moreover, it is necessary to promote and maintain connections to facilitate continuous learning. This represents a new way of learning and teaching, as learning and the construction of knowledge are based on the diversity of opinions and on the accomplishment of multiple tasks simultaneously. Learning increasingly includes the action of connecting different sources of information since social media foster creativity and the sharing of ideas. Consequently, all that demands continuous learning and the creation of learning communities (blogs, microblogs, podcasts, wikis, SMS, virtual worlds, social networks, interactive videos, chats, interactive reflections, quizzes, articles, interactive e-books, forums).

In this sense, since narratives are contents that migrate through the convergence of interfaces and platforms, transmedia storytelling may also be products that derive from the connections created by the cyberspace (Lévy, 1999). It is with the interaction that arises from such process that the potential of newborn content as a learning tool, which is also empowered by connectivism, can be witnessed. That is how the use of transmedia storytelling as a pedagogical resource in the classroom collaborates for improving and expanding the pedagogical content so that it becomes more attractive to students. In this proposition, the teacher is someone

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<sup>7</sup> Own translation.

who breaks the teaching hierarchy and plays the role of students' guide in their insatiable pursuit of knowledge. “Students learn following their own methods, through paths chosen by themselves” (Kohan, 2005, p. 4).<sup>8</sup>

Such thought dialogues with the principles of connectivism and with the possibilities of immersion in the transmedia storytelling, in which students will be able to choose the paths to follow in order to discover a content that is distributed in a non-linear way. Immerse in the narrative and stimulated to stay connected, these individuals may build their own sharing spaces of collaboratively produced content. Teachers then play the role of a conductor of the processes of creation of new stories that may be built through media franchises. In this light, the buildup of knowledge takes place with exercises of transmediation, which consist in, after selecting an aspect, element or part of an existing narrative from an already-built franchise, propose that students create new developments as means to approach a given concept. That is, a didactic component of the school subject shall serve as a fundamental piece of this new story which is narrated simultaneously to its construction from an existing narrative universe.

That being said, for the discipline of Laboratório em Mídia Digital II (Digital Media Lab II), whose content the culture of convergence and the transmedia storytelling, what the present work proposes is that from the narrative universe of *A song of ice and fire*, some core concepts of the discipline syllabus should be worked with students. In such proposal, instead of having content exclusively presented by the teacher, students should do research, find a diversity of sources and, in a practical manner develop their understandings around these concepts inside a narrative that unravels the universe of *A song of ice and fire*. It is still worth emphasizing that *A song of ice and fire* has been chosen here due to its great acceptance by the young audience, group which the students of the aforementioned discipline belong to. In addition, among these students many have been identified as fans of George R. R. Martin's story.

In practical terms, two elements of the narrative will be used to address four key concepts of the discipline. The first element are the maps of the narrative. They are an important part of the narrative and each book brings along a part that portrays a territory used in the story. The reason for the choice of these maps was its importance for the comprehension of the geographic space of the narrative, as the continent of Westeros is divided by the dispute for the Iron Throne, as well as for the comprehension of the change of location of characters throughout the narrative. Maps make for a better understanding of the story itself, by using them, students may execute a mediation exercise, creating a narrative development in which the concepts of collective intelligence and participative culture are dealt with. The choice of addressing two subjects from one element happened owing to the several possibilities that maps present for each of their territories and for the characters that move around them, and also because collective intelligence and participative culture are both parts of the same process: convergence culture.

The second element is the character Daenerys Targaryen, the last descendent of House Targaryen. She possesses a great connection with the dragons. Daenerys follows a course where she goes from deportee to queen and “mother” of three dragons, the last ones that have been heard of. When she enters the pyre that cremates her husband's dead body carrying three fossilized dragon eggs, they hatch. This is a pivotal moment in the story, for this is when

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<sup>8</sup> Own translation.

character's transformation comes about and it is clear to all that Daenerys has, indeed, “dragon's blood”. From that moment, she begins a journey back to Westeros to reclaim the Iron Throne that used to belong to her family for a long period and that was taken after her father Aerys II was murdered. Daenerys also seeks revenge for the hunting and killing of her family during the rebellion to seize the throne.

Considering that the Daenerys's story is still in progress, and that it is of great relevance to the whole story as she is a great threat to the other houses that dispute the Iron Throne, especially for having the dragons on her side, it is suggested that students create a development for the character's narrative. The concepts to be dealt with are interaction and collaboration. They are vital for the discipline as they characterize behavior patterns that are crucial for the development of the transmedia storytelling. Therefore, from the Daenerys Targaryen's already built trajectory, students should develop their own narratives about the character, bringing along with their stories the aforesaid concepts.

In this way, we are looking into the development of a teaching-learning process that stimulates students, thereby leading them to collaborate in the construction of concepts, encouraging research and the autonomy in each one of the participants of the pedagogical process of knowledge construction. Furthermore, we expect, by the intelligent use of transmedia storytelling and transmediation exercises in favor of education, to stimulate students' creative capacity, as well as collaborative learning, better absorption of the content at study and even build a rewarding interdisciplinary relationship.

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## Using the Strategy of The Lost Experience's Game as Methodology in Education

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**Abstract:** *This paper analyzes the concept of Transmedia Storytelling and Open Educational Resources in addition to the Lost narrative data, specifically the Lost Experience game. Using the strategy of the game as teaching methodology, we found that students are attracted to the content through the transmedia storytelling process and through the expansion of the narrative. This experience compels the students, encouraging them to learn through collaborative work. That experience/strategy can be applied, for example, in Textual Production classes. In this paper, we propose an activity for Textual Content: Narration. The strategy of the Lost Experience game applied as a methodology for teaching Textual Content Type: Narration brought significant results for the educational environment, as it enhances the students' engagement with the content, their pursuit for knowledge and promotes collaborative learning.*

**Keywords:** Transmedia Storytelling, Open Educational Resources, Lost Experience, Methodology

### Introduction

The connectivity offers us a new way of learning and teaching, as learning and knowledge building are based on the diversity of opinions and in performing multiple tasks simultaneously. Increasingly, learning includes the action of connecting different information sources, since social media promotes the ability to create and share ideas with others. Therefore, we will develop the theme “using the strategy of the game “The Lost Experience” as methodology in education” that leads us to a discussion focused not on technology but on the social attitude towards it. We refer to a more participatory, autonomous and creative style where the user creates and recreates, using and reusing content in a simple and natural way.

For this, we analyze the concept of Transmedia Storytelling and Open Educational Resources, besides the data of the Lost narrative, specifically the Lost Experience game. The game The Lost Experience worked as follows: the fan, after watching the chapter of the series (about 45 minutes long), would go 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/fan would interact with other players /fans so that, together, they would be in a “treasure hunt”.

We have as objectives conceptualize Transmedia Narratives and Open Educational Resources (OER), as well as conduct a documental research about transmedia narrative, Lost, focusing on the Lost Experience game, and then analyze the potential use of the strategy used in the game as teaching methodology in a classroom for a Textual Production class. To realize these reflections, the article was based on the theoretical approach of authors such as Henry Jenkins

(2006), Vicente Gosciola (2012), Carlos Scolari (2013), among others. Also, the research was based on the data of the Lost Experience.

We noticed that the student may be attracted by the content through the transmedia storytelling process and through the expansion process of this game. This experience engages the student, encouraging them to build learning through collaborative work. That experience / strategy can be applied, for example, in Textual Production classes. In this paper, we propose an activity for Textual Content Type: Narration. The Lost Experience game strategy is applied as a methodology for teaching Textual Content Type: Narration and generates relevant results to the educational environment, as it enhances the students' engagement with the content, their pursuit for knowledge and promotes collaborative learning.

### **1. Defining Transmedia Storytelling and Open Educational Resources**

Communication, historically, always made use of the best resources, it is a lively and a social practice. Many "eras" emerged and many others will come and communication will continue to exist, people and companies will continue communicating. Some types of companies will cease to exist while others will be created, a type of consumer will decrease immensely and another will grow rapidly. All of these because we need to communicate better.

In order that to happen, changes are required. Think clearly: people are the same, their needs too, but the way to meet them is changing. The current context of communication, interaction and collaboration between subjects include the concept of Transmedia Storytelling as the art of creation, distribution and exhibition of a narrative's universe that expands and enriches the narrative experience whether it be for entertainment, information, trade etc. for education. Henry Jenkins defines transmedia narrative as an expanded and story divided into several parts which are distributed among various media (Jenkins, 2006).

Basically, Transmedia Storytelling is a communication strategy that organizes content and platforms to tell a story (Gosciola, 2012). This strategy determines which platform will be dedicated to the main story and which ones will be used for additional stories. The key is that the platform of choice for certain part of the story is one that can best express its content. In this process, each medium contributes in their own specific way for the outcome, building a unified and coordinated entertainment experience (Martins, 2009). But, for this, there must be connection between the parts of the story, thus demonstrating to the public a clear cohesion between the many parts of the narrative in their respective platforms; otherwise no one can fully enjoy the work.

Telling a transmedia story involves one of these two processes: either you have a unique story that is divided into different media, or you start with a story and add pieces to it (ad infinitum). These two processes result in projects that can be described with phrases like: 'better than the sum of its parts' and 'a single, cohesive story'. (Phillips, 2012, p. 15)

The structured by Transmedia Storytelling project, first, provides the roadmap and its division into parts, then define which platforms will receive parts that script, and ultimately determines how long each platform will be available to the public and how it may participate and / or articulate narratives. As stated Giovagnoli (2011), "transmedia means to allow multiple media tell different stories, but all explore a common theme, even if it is experienced through different perspectives of the narrative" (p. 17). Certainly the most important factor of this

strategy is in the condition to reach an audience that is not satisfied with only one means of communication.

The growth of the content offered through the web means that the audience is seeking information and entertainment on more than one platform, sometimes even simultaneously, and the transmedia narrative strategy has been fulfilling its role. Because it produces more content, the apparent downside is the impression that it is more toilsome than actually is, but this idea quickly wears off when one realizes that the strategy achieves a much larger audience.

Another important issue that seems to rise before this scenario is essential to reflect on how this participatory culture (as explained by Burgess and Green (2009): “a term generally used to describe the apparent link between more accessible digital technologies, user-generated content and some kind of change in the power relations between the market segments of the media and its consumers” (p. 28) is revitalizing the traditional process of knowledge construction, how educators are reassessing the value of informal education and how subjects are applying their skills as players (gamers) and fans at different social levels: work, family, school and politics. With this culture that arises, the production and reuse of content establishes the concept of Open Educational Resources. According to the definition given by UNESCO (2011), OER are teaching, learning and research materials, in any format or medium, that are in the public domain, or are licensed openly, allowing them to be used or adapted by others. Using open technical formats facilitates access and potential reuse of resources published digitally.

The key element that distinguishes a OER of any other educational resource is its license. Therefore, a OER is simply an educational resource with a license that facilitates its reuse - and possibly adaptation - no need to seek permission from the copyright holder. (Inamorato, 2013, p. 21.)

Open Educational Resources can include full courses, part of courses, modules, textbooks, research articles, videos, pictures, tests, software, and any other tool, material or technique that can support access to knowledge, i.e., OER is characterized as a content that can be on different platforms, can be shared and can be edited /completed by anyone who has interest in it, and through this cooperation the content becomes increasingly extensive and comprehensive.

### **1.1 Potential use of Transmedia in Education**

The possibility of the narrative to get more readers and/or viewers increases according to its expansion. “Two coordinates can define Transmedia Narratives, expanding a story through various media and collaboration among users in this expansion process” (Scolari, 2013, p. 45). The creation and deployment of these stories in different media by readers on the basis of a given original narrative also makes Transmedia Storytelling. As stated by Phillips (2012), “the stories in Transmedia process are slightly intertwined. Each can be consumed by itself and the reader/viewer has the idea that what was read/assisted was a complete story” (p. 13). With this, more specifically noted the potential for methodological proposals and preparing to digitally expanded content enabling a broader understanding of meaning, regardless the ways of reading, and at the same time, ensure the subject in contact with a part of the narrative, to understand the whole satisfactorily. Thus, each fragment is independent of the other and according to Scolari (2013) all texts, adaptations or expansions act as gateways to the narrative universe.

For Okada (2011), the transition from Web 1.0 to Web 2.0 has brought changes in the practices and ways of learning, seeking autonomy, co-authoring and socialization. “This transition requires a shift from the concept of “e-learning “- learning focused on access to digital resources, to the concept of “colearning 2.0”- co-learning based on multiple co-authorship” (p. 130.). Thus, we propose the inclusion of this new scenario in the educational environment for the student to become an autonomous subject of their learning, producing and/or collaborating on content production, either for formal or informal education.

Education should be organized around four fundamental types of learning that, over a lifetime, will be, in some way to each individual, the pillars of knowledge: learning to know, that is acquiring the instruments of understanding; learning to do, in order to act on their environment; learning to live together in order to participate and collaborate with others in all human activities; and, finally, learn to be essential pathway that integrates the previous three. (Delors; EUFRAZIO, 1998, p 11.)

Therefore, the immersion of the Transmedia resources in teaching and learning process will connect students to educational pillars, learning to know, to do, to live together, through the (co)learning that seeks to enrich the formal education and also the informal use of education in numerous resources, technologies and methodologies for a larger autonomy and inter-active and collaborative participation of the learner (Okada, 2011). Thus we can say that the content creation through the Transmedia process will bring individuals the characteristic such as “critical and co-authors,” that expand contents in a formal and/or informal way, integrating, for Okada (2011, p. 131) “learning, research and training collaboratively.”

According to Sharda (2009), the capability to work with Transmedia narratives in Education lies in the possibility of articulating curricula activities that are already present in the daily lives of students, such as collaborative working, information sharing and interaction. The use of open resources can assist educators with developing methodological strategies to better meet the demands of students, rightfully adapt to their context, also considering the various stages of student learning, their peculiarities and interests.

From the study of the franchise *Lost* and with the collected data, a proposed class of Text Production, which will use as a resource the discussion of Transmedia methods, more specifically, the strategy used in the *Lost Experience* game. We believe that it is possible to build pedagogical proposals in order to ensure the collaborative construction of educational content and meaningful and participatory learning from the students in the educational process. The franchise and the game were chosen because of their successes (as will be proven with the data in the next section).

## **2. The data from the *Lost* franchise and the game *Lost Experience***

*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 - flashbacks. To Regazzoni (2009), “*Lost* incites to think about another idea of truth, beyond what is simply “correct”, “fair” and “appropriate”. That is what both fascinates and

baffles in the series. “For this truth to be discovered is not re-lated to the end of the journey, but the beginning of a great mystery” (p. 25).

Success both by the critic and in public, the series had about 15.5 million viewers per episode during their first year of show, with only 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, web-comics, humor magazines, games, fan-films and fanfics. But, despite the series have come to an end, many mysteries remained unsolved, a fact that made the fans produce cultural products emphasizing these mysteries not yet unraveled. Products like fanfilmes, fanfics, blogs, and more.

In addition, there are sites created by fans with the intention of studying the series, episode by episode. As an example, we have the The Society for the Study of Lost (<http://www.loststudies.com/>). There are also sites that publish news about the se-ries, productions fans (or fanvids fan-films), and still offer chats with fans, and other resources, such sites like Lost.com (<http://www.lost.com/>).

The fictional universe of the series has also been explored through novels and alternate reality games, like the Lost Experience. This was an alternative reality game (ARG), developed by the writers and producers of the series itself for fans to participate in the plot, and yet expand it. This 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. This game was not about winning, but through it was possible to unravel some of the great mysteries of the island.

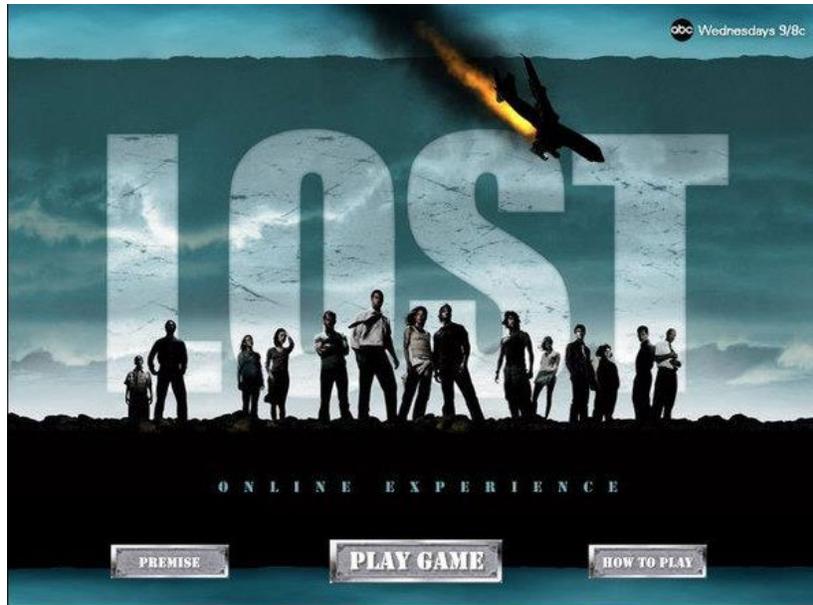


Image 1: Opening menu of the game. (Image is available in: <http://m1.behance.net/rendition/modules/21422507/disp/5006896df927199def95320d63d64fad.jpeg>)

The game *The Lost Experience* worked as follows: the fan, after watching the chapter of the series (about 45 minutes long), would go 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/fan would interact with other players /fans so that, together, they would be in a “treasure hunt”.

The *Lost Experience* is presented as a multifragmented narrative that spans in different media composing a product read in layers and in different modes of perception and variables according to the user experience. Both *Lost* and *The Lost Experience* are byproducts of a Transmedia franchise that can be read through the implications of a narrative as a pervasive and collaborative game, in which multiple recipients are encouraged to conduct a hive behavior in the resolution of a plot consisting of complex lines and specialized tasks (Lesnovski, 2011, p. 2).

Also, according to 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 was created at the end of the second season, when an advertisement was published on behalf of the Hanso 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. Education and Transmedia: Proposed class of Textual Production using as method The *Lost Experience* game strategy**

To develop the activity we selected some criteria such as grade level in which the activity, discipline, and content can be applied. The proposed of utilization of the transmedia, especially from the game *Lost Experience* strategy, was designed for a class of 8th grade of

elementary education in a private school in the city of Aracaju (Brazil), in the discipline of Text Production, with the content Typology Textual: Narration.

The strategy that will be used in class is based on the same strategy developed for the game Lost Experience. In this game the person feels driven to play to uncover clues that may help to understand the mysteries left by the episodes. The series' fans played the Lost Experience in order to understand the mythology contained in the Lost universe. Feeling yourselves inside the series, immersing in the world of the narrative when they were not watching the series (interval between seasons), or contested through another platform media (books, comics and webvideos). Since, “the experience can develop the vital energy of transmedia storytelling with promoting stories in various media that interact with others in a way that is even more suggestive , integrated and participatory for the audience another” (Giovagnoli, 2011, p. 58).

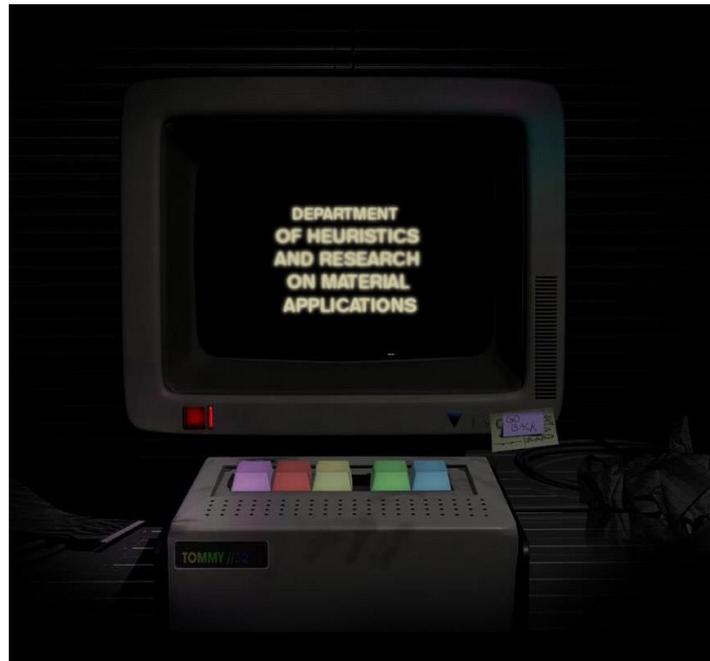


Image 2: Example of how the tracks were put in the game. (Image is available in: [http://img1.wikia.nocookie.net/\\_\\_cb20060615010803/lostpedia/images/f/fa/THE\\_DHARMA.jpg](http://img1.wikia.nocookie.net/__cb20060615010803/lostpedia/images/f/fa/THE_DHARMA.jpg))

Therefore, we will describe the step by step of the proposed activity to predetermined content, using transmedia elements, as well as the strategy of investigative character of the game Lost Experience. At first, in class, the teacher should tell the students that the theme of the class is Textual Typology: Narration. Thereafter students must be requested to seek in different media (printed book, website search, e-book, magazine, social network, etc.) examples of narrative texts as well as their characteristics. During this activity, if the student encounters a question or cannot understand certain content, it must interact with a colleague to exchange information, in order to answer any questions and aggregate knowledge. And yet, continue the research collaboratively.

After the collection of content, students should produce collaboratively some narrative texts that can add to the episode that they watched. Finished the productions, the teacher through texts created, you should check the level of student learning about the content of the lesson

(Textual Typology: Narration) and thus will guide them on what is necessary to achieve these learning on that content. Upon completion of the activities and collective reading from the writing, the teacher have to show the following episode (or what comes closest to answering the questions raised in the previous episode).

Similarly this process instigated several fans of the series *Lost* to seek content on the Island, the teacher can also excite students to seek information curricular content, as proposed for the content Textual Typology: Narration. Young consumers see themselves as hunters and gatherers of information, they like to delve into the narrative, rebuild / experience the story of the characters and connect with other texts within the same franchise (Scolari, 2013). With this activity students are encouraged to go to the pursuit of knowledge in an interactive, autonomous and collaborative way, thus cementing the learning of the “hunted” by them content.

## **Conclusion**

The new media have innovative ways to teach and learn, since learning and knowledge building are based on the diversity of opinions and the achievement of communicative events. Thus, we conceptualize the Transmedia Narrative as a story expanded by some clippings, present in these diverse media. The choices of media in which the narratives are to be taken have to express the content in a way that the reader/viewer can understand the “whole” through what was read/watched.

In line with the concept of Transmedia Narrative, we have Open Educational Resources (OERs). The OERs are all kinds of content to teaching, learning and research that are in any media platform. As these open content license so that other subjects, besides the first “author”, can contribute to the building of that content.

Through these concepts, we see the potential of using the resources of Transmedia as a teaching method. In these potentials we can highlight: the possibility of the subject not just be a spectator and become coauthor of a certain content, the development of the autonomy of the subject both to produce content and to expand the narrative, how to find content which also expand their knowledge about a certain topic, collaborative work that can exist between individuals with common interests. These and other potential of Transmedia tend to instigate the subject for learning a given content and they are factors that are already present in the daily lives of most people.

As an example of a Transmedia Storytelling we used the series *Lost*, which were described data that prove its success and highlight one of the parts of the universe of this franchise, the game *Lost Experience*. The strategy used in the game attracted many fans who were encouraged to search for content in different media still can unravel the mysteries of *Lost Island*. The intention is to make use of transmedia language used in the promotion of the series, for educational purposes. Since the series has effective devices and proven with the success of the series worldwide.

Based on this strategy, we propose its use in a class of Text Production, with Textual Content Type: Narration. In the activity developed by the students, they feel challenged to build their knowledge independently/autonomously and develop their collaboration skills, thus we believe that the student will feel urged to expand engagement in the pursuit of knowledge,

empower their interaction/involvement with content, thus promoting collaborative learning, similar to what occurs when subjects use these resources for entertainment purposes.

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## Assessment and Motivation: Perspectives from Teacher Candidates

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**Abstract:** *The importance of the relationship between assessment and motivation in supporting student learning has been increasingly examined in education. This relationship is however rarely studied from teacher candidates' perspectives. This study collected data from 42 teacher candidates at a Canadian university. These teacher candidates responded to an on-line discussion on the relationship between assessment and motivation and 112 datasets were collected based on their discussion. A standard thematic coding process was adopted to analyze these responses and codes were inductively generated. Four interrelated themes were derived: classroom assessment environment, the nature of assessment tasks, the effectiveness of feedback, and the clarity of learning goals and criteria. Specifically, creating a task-involving classroom environment, assigning authentic and diversified assessment tasks, providing effective feedback, and clarifying learning goals frequently co-occurred with intrinsic motivation. A competitive classroom environment, teaching to the test, and giving students grades co-occurred with extrinsic motivation, including both self-determined extrinsic motivation and non-self-determined extrinsic motivation. The findings support the existing literature on assessment and motivation and bear implications for teachers, teacher educators, and educational administrators.*

**Keywords:** assessment, motivation, teacher candidates, self-determination theory

The relationship between assessment and motivation has been an important topic in education, and such a relationship has been increasingly examined since the publication of Black and William (1998a). However, such a relationship is rarely studied from the perspectives of teacher candidates. It is essential to understand how these beginning teachers perceive their approach to assessment influences how their students learn, how their students see themselves as learners and as human beings. Research into the perspectives of these beginning teachers can connect with the current teaching practices but also foresee the future of education.

Teachers' day-to-day classroom assessment practices include both formative and summative assessment. Formative assessment involves providing effective feedback whereas summative assessment involves the evaluation of learning with a mark or a score. Previous research shows that formative assessment conducted by teachers in the classroom has a positive impact on students' learning and their motivation and may increase students' achievement, their understanding of how to learn, and control over their own learning (Black & William, 1998a; Brookhart, 2009). The success and achievement that students obtain through assessment "is the essential fuel that powers the learning system for students" (Stiggins, 2005, p. 19). Yet, McMillan, Cohen, Abrams, Cauley, Pannozzo & Hearn (2010) identified a continued need for research into the intricacies of the relationship between formative assessment and student

motivation. Brown, Harris and Harnett (2012) claimed that little research has been done on teachers' conceptions of feedback, an important aspect of assessment. To address this identified need, Brown et al. surveyed 518 New Zealand teachers and found a meaningful relationship between teachers' beliefs about feedback and their practices. While this study focused specifically on feedback, it indicates the need for continued research into how teacher's views of various aspects of assessment impact their practice and therefore, their students.

However, assessment is a two-edged sword (William, 2011). Harlen and Deakin Crick (2003) systematically reviewed the impact of summative assessment and tests on students' motivation for learning and concluded that assessment can improve instruction, but it can also impact learner's willingness, desire, and capacity to learn. They stated, "Testing, particularly in high stakes contexts, has a negative impact on motivation for learning that militates against preparation for lifelong learning" (p.169). In their case study of 96 high school social studies students, Brookhart and Durkin (2003) found that traditional tests were associated with lower student self-efficacy, compared to performance assessments, likely because tests failed to tap into both internal and external types of motivation. As a result, some students are motivated by tests and the gap between higher-achieving students and lower-achieving students is consequently widened.

Stefanou and Parkes (2003) conducted a mixed-method study with students in three Grade 5 science classrooms, comparing students' attitudes toward science, cognitive engagement and goal orientation in three different assessment conditions: laboratory task, paper and pencil tests, and performance assessments. They found that students' view of the different types of assessments differed greatly depending on whether the assessment was associated with grades. When the external motivator of grades was removed, students viewed the intellectual challenge of the performance assessments more positively, and were more willing to take learning risks as they were no longer concerned with the negative impact on their grade. Clearly, the role of external motivators such as grades must be considered when exploring the relationship between assessment and motivation.

Teachers can exert influence on students' motivation through instruction, assessment, and feedback (Taylor & Nolen, 2008). What motivating strategies teachers choose is not a simple question and some motivating strategies "can have unintended side effects, particularly for low-achieving students" (Taylor & Nolen, 2008, p. 81). It is essential to explore the teacher candidates' perceptions of motivating students through classroom assessment and by involving them in the assessment procedures. The goal of this study was to understand how teacher candidates view the relationship between classroom assessment and motivation in supporting their future students' learning. Specifically, we explored how these teacher candidates understood assessment and motivation, and how they saw the use of assessment in supporting their students' desire to learn.

### **Assessment, learning, and self-determination continuum**

According to Dörnyei (2001), the role of assessment in motivating students to learn has been discussed in many theories of motivation. There are theories focusing on reasons for engagement in assessment tasks (e.g., intrinsic motivation theory, self-determination theory, flow theory, and goals theory); theories that focus on integrating expectancy and value constructs (e.g., attribution theory, expectancy-value theory, and self-worth theory); and theories that

integrate motivation and cognition (e.g., theories of self-regulation and motivation; theories of motivation and volition). Of particular fit to the assessment context is the self-determination theory introduced by Ryan and Deci (2000) and Deci and Ryan (2012), who have further developed notions of intrinsic and extrinsic motivation, and on the relationship of these qualities of motivation to the three basic human needs for autonomy, competence, and relatedness. This theory categorizes types of human motivation along a continuum ranging from self-determined forms of intrinsic motivation to controlled forms of extrinsic motivation and finally to amotivation, depending on degrees of self-determination. Testing and assessment policies are mostly based on the concept that rewards, punishments, and self-esteem-based pressures are effective motivators for learning. Self-determination theory thus fits well in the assessment context.

According to Ryan and Deci (2000) and Deci and Ryan (2012), intrinsic motivation refers to the motivation, which makes one feel that engaging in an activity is inherently interesting or enjoyable. If the assessment practices that teachers employ help students feel learning is an interesting and enjoyable process (and make assessment real to students), then students are more likely to be intrinsically motivated. In contrast, extrinsically motivated behaviours are instrumental in nature. Self-determined extrinsic motivation is presented when individuals participate in an activity on a voluntary basis because the activity is valued and perceived to be of importance. It is extrinsic because the reason of participation is not within the activity itself but as a means to an end. Meanwhile, it is self-determined because the individual has decided and experienced a sense of direction and purpose in participating. If the assessment practices teachers employ makes students feel their learning is an important process for self-improvement, students may possess the self-determined extrinsic motivation to learn. Non-self-determined extrinsic motivation occurs when individuals' behaviours are regulated by external factors, such as rewards, constraints, or punishment. This type of motivation is extrinsic because the reason individuals participate in an activity lies outside the activity itself, i.e., the behaviour is not self-determined. If the assessment practices teachers employ encourage students to feel that their learning is driven by external rewards, such as bonus in grades or praises from teachers, students are non-self-determined extrinsically motivated. Amotivation is the state of lacking an intention to act. Students feel that they have no sense of control over their actions. This occurs when assessment fails to motivate students to learn both intrinsically and extrinsically. Teachers should reflect on their own assessment practices in order to motivate students to learn.

### **Involving students in assessment to increase motivation**

One effective way that teachers can influence student motivation is to involve students in the process of assessment, which can be accomplished through various approaches. For example, teachers can involve students in the determination of learning or achievement goals. According to Stiggins (2005), "If students play even a small role in setting the (learning achievement) target...we can gain considerable motivational and therefore achievement benefits" (p.244). The main responsibility for creating achievement goals rests in the hands of the teacher, usually guided by the curriculum and standards but students can collaborate with the teacher to develop additional self-directed outcomes of learning and goals directed toward their interests. By becoming involved with the desired outcomes of learning, students gain motivation to learn.

Stiggins (2005) explains helping students learn to reflect on and see their own improvement as achievers also engages students in assessment which increases motivation.

Keeping learning logs and receiving frequent teacher feedback can raise students' awareness of progress toward learning goals. Further research shows that when students understand and apply self-assessment skills, their achievement increases (Black & Wiliam, 1998b) and that self-assessment plays a significant role in increasing students' motivation to learn. Through self-assessment, students directly observe their own improvement and therefore are more motivated to achieve. By involving students in the assessment process, teachers encourage students to create a sense of internal responsibility for their achievement. Stiggins (2005) remarks that students "must take responsibility for developing their own sense of control over their success" (p. 296), which in turn, leads to greater motivation and academic success.

## **Method**

The study explored the relationship between motivation and assessment. The study was explorative and descriptive in nature and data were analyzed through a process of inductive analysis, as described by Patton (2002) and McMillan and Schumacher (2010).

### *Participants*

The participants were 42 teacher candidates in a pre-service teacher education program at a Canadian university. All the participants were in the Intermediate-Secondary stream, with teachables ranging from English to technology education. The teacher candidates were enrolled in an elective course on classroom assessment practices and all members of the course participated in the study. The course examined the role and impact of assessment and evaluation on teaching and learning. Instruction focused on the philosophical foundations and practical applications of assessment and evaluation. Teacher candidates were required to develop expertise in planning and conducting assessments and integrating learner-centered and growth-oriented approaches to assessment.

### *Instrument and data collection*

Data were collected from the participants' online discussions on the relationship between motivation and assessment, as part of a mandatory class assignment in which all class members participated. While the discussions were first used to fulfill course requirements, permission was granted from the participants to use the discussions as data for potential research, upon completion of the class. Teacher candidates posted their responses to the following prompt, as well as responded to their classmates' posts:

You are to discuss the key concept of motivation and assessment . . . You may:  
(a) explore the definition of motivation in relation to aspects of assessment and explain what it means to you as a teacher; (b) discuss what the relationship looks like in practice, (c) connect the concept to your own life or teaching experiences.

As a result, 112 postings were collected and organized chronologically by the conversation threads. This type of data falls under the category of computer-mediated discourse, defined as any "communication produced when human beings interact with one another by transmitting messages via networked computers" (Herrig, 2008, p. 612). In our study, we treated the data as written texts with two levels – first teacher candidates' own discussions and then their responses to their peer's discussions.

### *Data Analysis*

Three researchers concurrently and individually analyzed the data. Our analysis was guided by a standard thematic coding process, as outlined by McMillan and Schumacher (2010). We employed inductive analysis, allowing the findings to emerge from the data, as opposed to applying an existing framework (Patton, 2002). One of our researchers compared our process of inductive analysis to “travelling in a new city without a map. Gradually, you will find where you are and enjoy the exploration.” After sorting and organizing the data, we read the data on multiple occasions to “get a sense of the whole” (McMillan et al., 2010, p. 371). We each generated initial codes for segments of the data. We applied our initial codes to the remaining data, adding, collapsing, and renaming codes as we refined our coding system. We then looked for similarities and differences amongst our codes, and created categories based on our codes to further our understanding of the relationship between assessment and motivation. Upon the completion of our coding process, we shared our codes with each other to refine the data and to ensure inter-rater reliability. In cases where there was discrepancy in coding, we returned to the original data to discuss each segment and the appropriateness of an assigned code. After our discussions, we were able to reach consensus on our codes, and developed a deeper understanding of the teacher candidates’ perspectives on the relationship between motivation and assessment. Finally, a frequency count was conducted based on the agreed upon codes to provide an overall picture of the data, as well as illuminate the most emphasized categories.

### **Results**

Altogether four overarching themes emerged from the data: (a) classroom assessment environment, (b) nature of assessment tasks, (c) effectiveness of feedback, and (d) clarity of learning goals and criteria. Each theme in conjunction with motivation revealed how the teacher candidates perceived the relationships between assessment and motivation (refer to Appendix: Table One).

#### *Classroom Assessment Environment*

Classroom assessment environment is the most frequently emerged theme related to motivation (see Table One: 48 counts of frequency). This theme comprises of seven main codes: ego-involved classroom, competitive environment, social comparison, teaching to test, competing with oneself/self-improvement, task-involved classroom, and teacher-student relationship. There seemed to be a general consensus among the participants that ego-involved classroom, competitive environment, social comparison, and teaching to test tend to create a negative classroom assessment environment, which easily gives rise to students’ extrinsic motivation and harms their intrinsic motivation. In contrast, encouraging students to compete with themselves, creating task-involved classrooms, and building a positive teacher-student relationship may provide a positive classroom assessment environment, which helps foster and enhance students’ intrinsic motivation.

Participants commented that in an ego-involved classroom, students pursue performance goals rather than mastery goals, compete with each other rather than collaborate with their peers, and focus attention on their marks instead of their progress. This kind of assessment environment only benefits the high-achieving students and exerts a strong negative impact on the rest of the class. In addition, the ego-involved classroom is likely to eliminate the possibility of successful team and group work, which are extremely important in a learning environment. One participant thought it impossible to eliminate competition because “it is human nature to compare yourself

to similar individuals but as a teacher I can try to minimize it”. Another participant commented on the negative effect that the ego-involved classroom has on students’ motivation:

Student motivation that results from an extrinsic need for students to demonstrate their intelligence and skills at a particular task in comparison to another student does not provide a valid motivation, since the student’s success in completing performance goals is dependent on their ability to surpass the ability of another student in the class. This academic arms race to be the smartest, most skilled student in the class does not place the focus of learning on improvement or the act of learning itself, but rather on achievement or extrinsic factors.

Likewise, the participants expressed that social comparison and teaching to the test also have detrimental effects on students’ motivation. Many extant socio-comparative practices, such as offering honor classes, tracking students into high- and low-achieving groups, and teachers and parents expecting students to enter a better postsecondary institution, are all likely to compel students to emphasize their grades and compare themselves with others. In particular, four participants pointed out that grouping students into high-achieving classes and low-achieving classes harms students’ motivation. This practice puts the low-achieving students into a self-perpetuating cycle of underachievement that is very hard to break, stereotypes students based on their intellectual ability, and forces some students to ‘suck’ at the subject, which results in students’ low-esteem. In addition, the ever-present shadow of provincial testing or other standardized tests pressures teachers to forgo proper instruction in favor of “teaching to the test”. These tests are required for students to complete high school but as one participant commented, “They did not seem to have many connections to real life scenarios and definitely did not meet the realistic interests and demands of student lives”. According to some participants, streaming students and “teaching to the test” led to a lack of student motivation.

However, building a good teacher-student relationship, encouraging students’ self-improvement, and creating task-involved classrooms may foster and enhance students’ intrinsic motivation. Four participants thought that the quality of teacher-student relationship was essential to the improvement of students’ motivational levels. Working with students not only during instruction but also in the design of assessments proves that teachers are allies in the students’ education and builds trust with students. Providing students with specific comments rather than vague ones may also help establish a positive professional teacher-student relationship. As one participant explained, “This allows the students to realize that the teacher has noticed their work and how they are doing in the class. The students would not feel like they are just a random person in a class of 30 and would feel the teacher is easily approachable to ask questions.”

In addition, creating task-involved classrooms plays a pivotal role in enhancing students’ intrinsic motivation. One participant advocated restructuring assessment to focus on self-improvement, rather than attaining a high mark. Another participant suggested using criterion-based assessment instead of norm-referenced assessment and regarded this as one of the pillars of a task-involved classroom. In a task-involved environment, students learn for the sake of learning. They are encouraged to compare their current performance with their targeted one and build up confidence by noticing their own progress.

### *Nature of Assessment Tasks*

The participants' responses delineated two key features of effective assessment tasks which they perceived to impact students' motivation: authenticity and diversity. Authentic tasks can help students connect their class work to real world applications and see the meaning of these tasks hence increasing their intrinsic motivation. The teacher candidates reported different strategies to create authentic tasks which are intriguing to students. For instance, a participant taught a Civics course which gave students the opportunity to tie in historical drama to current political issues, conducted mock debates, and had a constitution writing competition. All of these tasks made an otherwise boring course appealing to students. An English teacher candidate devised a Coat of Arms assignment when teaching Macbeth. Each student chose a character and designed a coat of arms with colour symbols and a motto representing the important aspects of the character's personality and motivation. Students forgot about the grades they would attain and let their imaginations "run wild" in completing this assignment. These tasks were deemed authentic to varying degrees and proved effective in enhancing students' intrinsic motivation.

Providing choices with diversified tasks is another way of motivating students perceived by these teacher candidates. On the one hand, providing students with choices encourages students to take ownership of their learning. As one participant pointed out, when students felt that they chose the right project for themselves, they would become more motivated. On the other hand, allowing students to choose tasks with different levels of challenge may keep students of mixed abilities motivated. One participant described the following scenario:

I was teaching graphing and statistics and some of my students could graph data flawlessly within a few minutes and some students could not properly scale a graph. I wanted to allow students to have the time to complete the task but at the same time I didn't want other students to sit around with nothing to do. By using a variety of activities and giving student more choices I was able to do this. I would create questions of varying difficulty and allow them to have a choice as to which one they would complete and present to the class. This task was successful because students were able to choose the question that challenges them.

### *Effectiveness of Feedback*

Effectiveness of feedback was another important theme frequently emphasized by the participants. They perceived effective feedback to be timely, positive, and specific and different forms of feedback (i.e., comments and grades) differ in their effectiveness. Effective feedback helps clarify learning goals to students, communicates the purpose of learning so that students become more motivated (Feed Up). Such feedback also helps students know their strengths, areas for improvement, and next steps in their work (Feed Back). Further feedback provides teachers with information to modify their teaching (Feed Forward). Effective feedback plays a critical role in building and enhancing students' motivation for learning. The following quotation illustrates some of the participants' perspectives:

Motivation is only maintained when educators provide focused, timely, and consistent feedback that align with the learning goals of the task. Essentially, many students need direction and guidance along the way. Students need to know what they are doing well and what skills need to be improved in order to attain the learning goal. I truly believe that providing students with effective feedback helps students to focus on their own learning process while becoming

more confident in their growing abilities. This ultimately leads students to become more task-involved.

Timeliness was considered the first important aspect of effective feedback. The participants thought it crucial to catch students' interest and attention while their minds were still on the topic. Handing back tests or assignments on time with feedback helped "nip problems in the bud". The participants also thought that feedback should be provided during the formative stage of the teaching-learning cycle so that students had the opportunity to use it to improve their work prior to the summative assessment task. Giving immediate or timely feedback enables students to apply the feedback to their work and hopefully use it to learn the material better. While emphasizing the value of giving timely feedback, the participants also discussed the challenges. One major barrier mentioned repeatedly was large class size. Faced with this challenge, the participants discussed becoming creative when determining assessment methods that would allow for shorter turnaround times.

Positive feedback was further emphasized in the participants' discussions. One participant commented, "To maintain a focused and enthusiastic class, it is vital to offer positive and encouraging responses to all appropriate contributions. It is amazing how easy it is to kill a healthy classroom atmosphere with a negative attitude or comment." Another participant asserted that positive feedback might have the most powerful influence for motivating students and building up their confidence. Encouraging feedback was considered necessary even after all the final grades had been recorded so that students were motivated to see learning as a continuous process.

Specificity was considered as the third important feature of effective feedback. Specific feedback, rather than vague, broad sweeping statements, may provide information with respect to students' strengths, weaknesses, and most important next steps. It assists students in focusing on their own learning and improves their confidence as learners. The participants also thought that compared with high-achieving students, weaker students had trouble understanding feedback and required more specific steps to develop a growth mindset and see a path toward understanding.

Regarding various forms of feedback, the teacher candidates thought that feedback could be provided through comments (written or oral) and grades, yet feedback in different forms differs in effectiveness. The participants disliked the "rubber stamp comments" and preferred the "sandwich" approach. The former include comments like "very good" or "excellent work", which was considered ineffective to motivate students and enhance their learning. By comparison, the latter approach begins with a positive comment, then areas to focus on or improve and then another positive or encouraging comment to end. In the process of providing conferencing and individual help, the participants believed that how a teacher answers a student's questions made a difference to their motivation. For example, when students asked if they were on the right track during open door sessions, one participant never told the answers directly but provided feedback with a series of questions like "Why did you do that?", "Are you missing a step?", "What did you do to prepare for the test?" and "Can you think of another way to solve this problem?" This type of feedback proved useful by helping students to better understand the gaps in their knowledge and developed an "I need to know more about this" mindset.

The participants' voices diverged regarding the roles that grades play in motivating students. A vast majority of participants believed that grades might be a motivator to the higher achievers who enjoyed the status of being perceived as better than their peers, but a detriment to the lower achievers' confidence if they received poor grades repeatedly. It was deemed likely that students motivated by grades rather than real interests would encounter troubles in the long run. They might not know what they wanted to pursue as their career after graduating from high school and ended up making the wrong choices in their post-secondary education. Additionally, the participants emphasized that grades might bring fear rather than joy of learning to students. As one participant commented, "To receive a grade is like a final judgment to students. Students learn to fear of getting bad marks, and that fear drives them to pay attention in class." However, two participants expressed opposite views. One participant thought that the students' reactions to grades differed greatly and students who typically did poor on assignments and assessments seemed to be very positively affected in their confidence by a higher grade on their exit cards. Another participant believed that without a grade or something similar, students would have no idea about where they stand in terms of passing or failing the course.

However, if both comments and grades were given to students at the same time, the participants frequently mentioned that grades posed a threat to the effectiveness of comments. The participants complained that their time and efforts in writing comments were not duly valued and thus felt frustrated because students paid attention to grades only. For example, one participant commented, "As teachers, we often spend countless hours grading papers and writing comments in margins, only to have our students look at the grade and then toss the paper in the wastebasket." Faced with this dilemma, one participant suggested giving smaller assignments where teachers do not give back a grade, but just comments for specific improvement.

#### *Clarity of Learning Goals and Criteria*

The participants attached utmost significance to clarifying learning goals and criteria for students. They thought that the main responsibility for creating learning or achievement targets rested in the hands of the teacher, usually guided by school and district standards. Clearly communicating these goals was one practical way of motivating students and enhancing their achievement. With a clear goal set based on success criteria and exemplars, both students and the teacher knew what was expected and the direction to proceed. To close the achievement gap, teachers may provide students with information about their progress toward the goal and suggest actions to move toward the standards. One participant stated,

When explicit performance standards, expectations and guidelines are laid out, a positive environment for learning is created. Therefore, when students understand and fully comprehend what is being asked of them, their success path is more easily navigated. When the guidelines and standards are illuminated, this also allows for teachers to more easily evaluate and assess the quality and comprehension of the student.

In addition, the participants also perceived collaboration with students can support some additional desired outcomes of learning. For instance, developing rubrics or checklists for a unit project with students, deconstructing a text with students to generate criteria for essay writing, and asking students to evaluate exemplars using the rubric before completing the task allowed for a discussion regarding any discrepancies between the teacher's and the students' understanding of the criteria. Students thus could be more motivated to learn by becoming involved with the desired outcomes of learning.

## Discussion and Conclusion

This study explored teacher candidates' perceptions on the relationships between classroom assessment and motivation. Four major assessment-related themes: *classroom assessment environment, nature of assessment tasks, effectiveness of feedback, and clarity of learning goals and criteria*, were found to co-occur with motivation. This implies that classroom assessment and motivation are closely interconnected as seen by the teacher candidates (Brookhart, 2006; Taylor & Nolen, 2008). A closer look at the results found a pattern that creating a task-involving classroom environment, assigning authentic and diversified assessment tasks, providing effective feedback, and clarifying learning goals frequently co-occurred with intrinsic motivation, the most self-determined motivation. However, a competitive classroom assessment environment, teaching to the test, and giving students grades co-occurred with extrinsic motivation, including both self-determined extrinsic motivation and non-self-determined extrinsic motivation (refer to Appendix: Figure One).

Overall, the co-occurrence of assessment and motivation provides evidence that these teacher candidates perceive classroom assessment impacts students' motivation. Existing literature has shown that the information that the students internalize from classroom assessment fuels their learning system (Stiggins, 2005) and formative assessment, in particular, is "one of the most powerful ways to enhance student motivation and achievement" (Cauley & McMillan, 2010, p. 1). The participants' discussions in this study have thus confirmed with previous research evidence on the interconnectedness of assessment and motivation. Different aspects of classroom assessment environment exert different influences on students' motivation.

On the one hand, some aspects of classroom assessment are perceived to be closely associated with intrinsic motivation. Classroom assessment tends to nurture students' intrinsic motivation when it gives students a sense of competence, relatedness, and autonomy. In a task-involving classroom environment, students' attention focuses on their own improvement rather than the disheartening gap between the higher and lower-achieving students. Establishing a positive teacher-student relationship may also enable students to trust the teacher and have a sense of relatedness to the class. Providing effective feedback was seen to help students to feel that teacher is caring and supportive of their learning. As feedback is a powerful way to affect student achievement, it is consistently ranked as among the strongest interventions at a teacher's disposal (Fisher & Frey, 2009). Teachers need to know how to provide feedback, and also to teach students how to make use of their feedback. As a result, students will be more focused if they know their purposes for learning. In addition, teacher candidates saw assigning students authentic and diversified assessment tasks as helping students see value in increasing their effort to autonomously complete their work. Likewise, when students clearly understand their learning goals and the criteria, they may plan their own study, monitor their own progress and assess their own work, which also brings students a sense of autonomy.

On the other hand, some aspects of assessment are only seen to be associated with extrinsic motivation (see Figure One). Competitive classroom environment, teaching to the test, and giving students grades tend to detach students from their mastery goals. These assessment elements were not seen to bring students a sense of competence, relatedness, and autonomy. In a competitive classroom, students compare their performance with other students' performance. Some students, especially the lower-ranking students, may feel discouraged and gradually lose

confidence when they see a widening gap between the higher-achieving students even though they have expended efforts to their study. They also may not have a strong sense of relatedness as a result of the competition in the class. Additionally, the external high-stakes testing was seen to force teachers to have the practice of teaching to the test and leaves students little or no control in determining what they learn. This is consistent with the conclusion made by Harlen and Deakin Crick (2003) that the external high-stakes testing often negatively impacts students' motivation for learning and militates their preparation for lifelong learning.

Perry (2002) suggested that teachers build a community of learners, involve students in complex and meaningful tasks, give students choices and opportunities to control challenge, involve students in evaluating their work and reflect upon their actions. Wiliam (2011) emphasized five formative assessment strategies, i.e., sharing learning goals and criteria with students, eliciting student's current performance, providing feedback, peer assessment, and self-assessment. In this study, the teacher candidates' discussions highlighted the importance of the assessment environment, meaningful and diversified assessment tasks, good feedback practice, and sharing learning goals and success criteria with students. However, the other important aspects of assessment like self-assessment and peer assessment were underrepresented in the discussions. Future teacher education programs may call the teacher candidates' attention to and improve their skills of involving students in the assessment processes through these two strategies.

This study, though exploratory in nature through self-reported data, has important implications to teaching. The discussions of these teacher candidates were mostly based on their understanding of the research literature and what they had practiced in their teaching practice and wish to pursue in their future teaching. Despite this, we can see clearly the emergent themes from these teacher candidates' perspectives on the relationship between assessment and motivation. Hopefully this study offers an opportunity for us to listen to the voices of these beginning teachers who will shape our students' future classrooms and in doing so, address one aspect of the research gap in this area.

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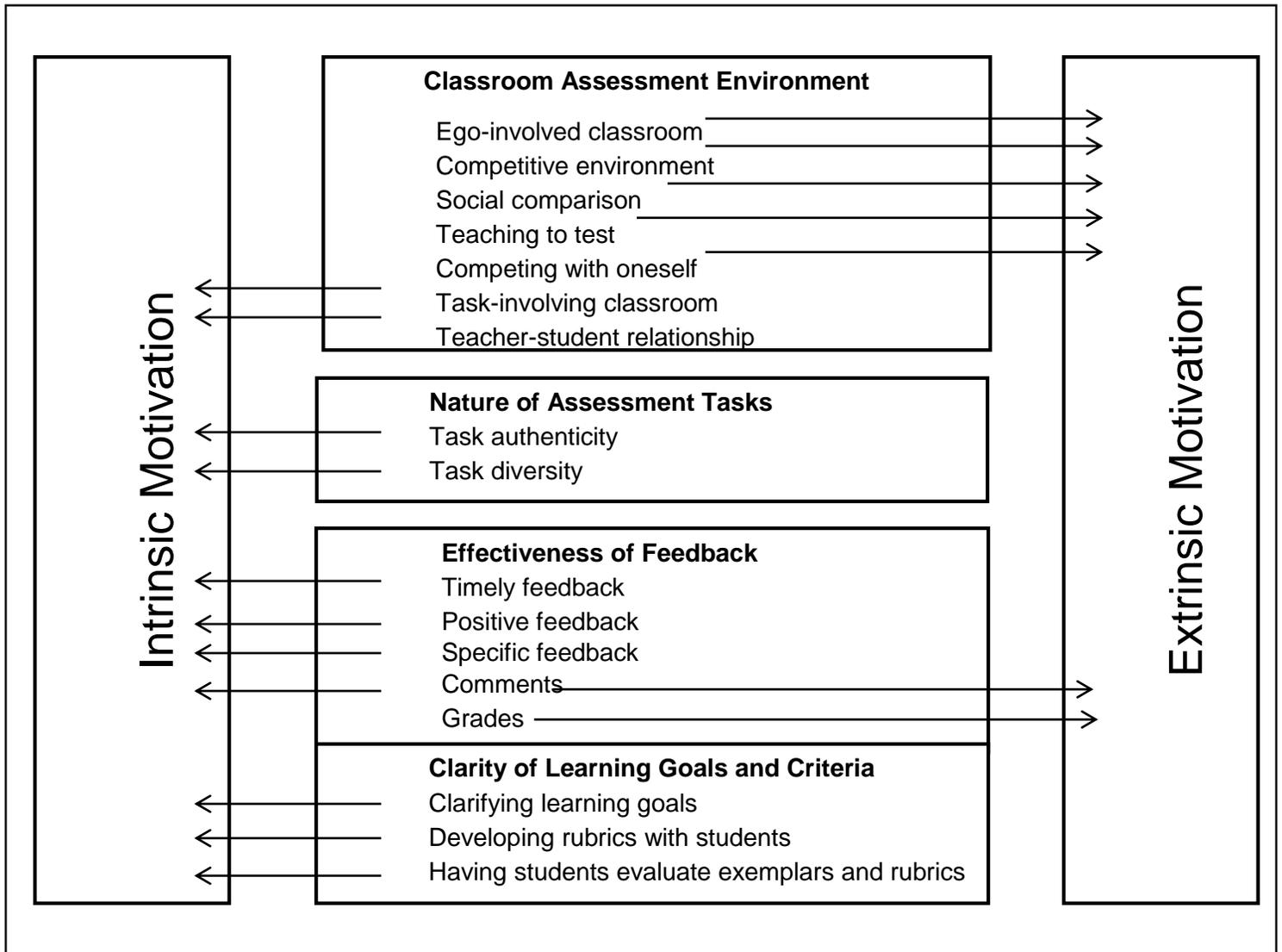
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## Appendix

**Table One: Frequencies of Themes and Codes**

<b>Themes and Codes</b>	<b>Frequency</b>
<b>Theme 1: Classroom Assessment Environment</b>	<b>48</b>
Code 1: Ego-involved classroom	8
Code 2: Competitive environment	6
Code 3: Social comparison	6
Code 4: Teaching to test	2
Code 5: Competing with oneself	4
Code 6: Task-involving classroom	18
Code 7: Teacher-student relationship	4
<b>Theme 2: Nature of Assessment Tasks</b>	<b>18</b>
Code 1: Task authenticity	11
Code 2: Providing choices with diversified tasks	7
<b>Theme 3: Effectiveness of Feedback</b>	<b>33</b>
Code 1: Timely feedback	5
Code 2: Specific feedback	8
Code 3: Positive feedback	2
Code 4: Comments	12
Code 5: Grades	6
<b>Theme 4: Clarity of Learning Goals and Criteria</b>	<b>13</b>
Code 1: Clarifying learning goals	6
Code 2: Developing rubrics with students	6
Code 3: Having students evaluate exemplars and rubrics	1

**Figure One: Conceptual Map of Teacher Candidates' Perception of Relationship Between Assessment and Motivation**



**Closing Comments and Report for the Annual General Meeting  
ICET 2014, 58<sup>th</sup> World Assembly  
University of Ontario Institute of Technology  
Oshawa, Ontario, Canada**

**Dr. Jia Li  
Dr. Shirley Van Nuland**

**Synopsis**

The conference program consists of five strands of topics, highlighting the theme of the conference **Moving Forward in Curriculum, Pedagogy and Leadership**. These five strands include “Pedagogy and Practice”, “Inclusion and Justice”, “Online and Distance Education”, “Policy and Politics”, and “Education for Sustainable Development”.

For the past three days, anecdotes and feedback from our international delegates and audience reaction in the sessions have shown that the conference was well received, reflecting high quality and informative intellectual communications and hospitable arrangements engaging local communities with thoughtful details.

**Some highlights of the conference**

The sessions provided quality presentations that demonstrated a body of solid research, classroom projects, as well as review and reflection reports on teaching practice and policies covering a broad range of areas. The collective effort from the ICET 2014 community, included our board executive committee, ICET 2014 planning committee, and mostly our delegates contributed to an excellent conference program, which envision the educational **leadership** in advanced research and practice across diverse areas represented by our delegates from all over the world.

Besides the themes being categorized by our planning committee based on the content of the submissions, our delegates have shown promising contributions toward a common goal of improvement of **curriculum** design, strategic instruction, and educational **leadership** via various forms, for example, research using different research methods by scholars at different stage of their careers, such as Levon Blue’s ethnographic, qualitative doctoral project on financial literacy education in an Ontario aboriginal community, where she grew up; Jamaican scholars, Dr. Mairette Newman and Dr. Carol Gentles’ five year longitudinal study on the evolvement of beginning teachers’ professional development; Dr. Patricia Ezenandu from Nigeria and her colleagues’ quasi-experimental study to capture the effects of metacognitive strategy on students’ reading comprehension.

Aside from these research papers presented in the conference, we have witnessed a strong trend of work discussing justice through teaching and learning, and the inquiry of the legitimacy of knowledge, which resonances with Dr. Lee Maracle’s talk at the opening Assembly. These include but were not limited to Dr. Janette Hughes’ work with her student, on critical digital literacies pedagogy to improve literacy in under-performing students trough mobile technology; Dr. Edmore Mutekwe and Dr. Maropeng Modiba’s Zimbabwean example of pedagogic

challenges influenced by gender issues; and the work of Dr. Tola Olujuwon and Dr. Juliet Perumal on teachers' perceptions toward teacher leadership where they outlined the barriers that mitigate against teacher leadership and concluded that if teacher leadership is to thrive, teachers must work collaboratively and their roles and responsibilities must be distributed within the schools.

One area our delegates identified that is close to our heart and needs much of attention for improvement is teacher education, the critical core of **pedagogy**. From the keynote by Dr. Tony Townsend from the University of Glasgow and the talk at the opening assembly by Dr. Michael Salvatori, CEO at the Ontario College of Teachers, we have achieved a consensus that we must constantly innovate teacher education, which is inevitable. Only when we embrace these challenges, can we meet the standard for great teaching. Many presentations and workshops were dedicated to this effort through promoting evidence-based, data-driven instruction, teaching with reflection, teaching to break through routine practice. Many important issues are discussed at the conference that pointed out the root factors influencing teacher education. This includes how teacher professional development takes into account local culture, socio-economic status factors and politics in teaching practice as a reality, whether these allow for the possibility that are different from academic and policy makers' perspectives. For example, UOIT's faculty members, Dr. Laura Pinto and Dr. Robin Kay worked with Toronto School Board curriculum leader, Rachel Cook, provided a hands-on workshop on remodeling lesson collaboratively for pre-service and in-service teachers; the thought-provoking work by UOIT professors Dr. Diana Petrarca and Dr. Ann LeSage on the admissions criteria in re-considering the pre-service teacher education admissions interview"; Dr. Helena Amaral da Fontoura's work on Brazilian teachers' training by reflecting upon the hows and whys in a pedagogical residence; and Dr. Michael Strong and Dr. John Gargani's teacher evaluation from the United States innovatively linking observations of practice with student test scores.

In talking about the challenges for teaching and learning in the 21<sup>st</sup> century, we must address the prominent technology advances and our young generation who are immersed in the technology-oriented culture. Dr. Isobel Pedersen, another keynote speaker outlined some questions on how technology frames human identity. By using communication theories and humanities methods, she furthered our understanding about the impact of emergent digital media on life and culture. New digital devices are often invented and embraced by society before we are able to understand the impact they have on our lives, culture, art and social practices. She explained and showed how computer devices and gadgets worn on the body alter the ways people interact with others and participate in culture.

Our educators and researchers at the conference have demonstrated that their critical perspectives and recommendations on fine-toned instructional strategies ensure the effective development and implementation of **curriculum**, including compatible and relevant teaching materials and technology-enhanced educational interventions. This is, for example, represented by the UOIT faculty member, Dr. Jia Li's research using focus groups with middle school students in Boston in collaborating with Harvard Graduate School of Education on urban teens' perspectives on social networking media and its applications for literacy instruction and learning, and the work by Dr. Thomas Ryan from Nipissing University, Ontario, regarding perspectives on social media use in the classroom with compelling social media resources.

## **Awarded Papers**

Peer-reviewed papers were considered for awards in the following categories: single-authored, multi-authored, student-authored, and student-supervisor authored. The reviewers recognize the following papers as exemplary:

### **Single-Authored Paper Title: A Poetic Response to Policy Layering, Intensification, and the De-Skilling of Teachers**

Author: Dr. Laura Pinto

Affiliation: University of Ontario Institute of Technology

Abstract: For several decades, the literature has documented ways in which teachers have been subject to declines in professional autonomy resulting from intensification. In Ontario, intensification has arisen from neo-liberal education reform mandating of multi-layered educational policy affecting teachers in their daily lesson planning. To make sense of the proliferation of policy, this project applied arts-based research. Teacher candidates collectively composed a poetic response that allowed them to reflect on how this shapes their work as incumbent professionals, underscoring the role of educational politics in intensification and de-skilling of teachers. Using the poem created by teacher candidates as data, this paper analyzes implicit implications that were given voice by the creative expression afforded by poetry.

Multi-Authored Paper: two papers are awarded in this category; these papers garnered identical ranking and are listed in alphabetical order:

### **First Multi-Authored Paper Title: Effects of Self-Explanation Reading Training (SERT) on Second Language Learners' Comprehension of Expository and Narrative Text**

Authors: Dr. Patricia Eziamaka Ezenandu and Dr. Chinyere Henrietta Maduabuchi

Affiliations: Federal College of Education Abeokuta Ogun State Nigeria and Ebonyi State University Abakaliki Ebonyi State Nigeria

Abstract: Reading research in Nigeria indicates that poor reading comprehension directly or indirectly affects students' performance in various school subjects. Thus, this research study investigated the effect of self-explanation reading training strategy on second language learners' comprehension of expository and narrative texts. The study adopted a pretest, posttest control group, quasi-experimental design. Random sampling procedure was adopted in selecting 3 intact classes each from 3 senior secondary schools in Abeokuta Metropolis, for the study. The study also determined the interaction effect of verbal ability on students' comprehension of texts. Descriptive and inferential statistics were adopted in analyzing the data collected. The result indicated that there was a significant difference in the pretest, posttest mean score of students exposed to treatment  $F_{(2,124)} = 51.348$   $p < 0.05$ . Students in the 2 self-explanation groups 1 (Science) and 1 (Art class) obtained the highest posttest mean achievement scores ( $\bar{X}=16.77$  and  $\bar{X}=10.21$ ) respectively compared to control ( $\bar{X}=7.23$ ). Hence, SERT enhanced students' comprehension of text.

## **Second Multi-Authored Paper Title:**

Authors: Dr. Edmore Mutekwe and Dr. Maropeng Modiba

Affiliations: Vaal University of Technology, South Africa and University of Johannesburg, South Africa

Abstract: This study explored how patriarchal ideology in Zimbabwe disguises as common sense in the school curriculum leading pupils towards a gender polarised consciousness. Focus group and individual interviews and classroom observations were used for data collection. The findings revealed the ways in which the patriarchal hegemony that is promoted through the curriculum reflected taken for granted masculine and feminine roles and existential attitudes, beliefs and values within society. Through their interactions with teachers, girls were oriented towards developing the type of consciousness, personal demeanour, modes of self-presentation, self-image and the gender identifications which predisposed them to specific social roles and competencies. The conclusion is that the patriarchal nature of the Zimbabwean school curriculum advantages boys through institutionalised and ingrained gender role beliefs and ritualised behaviours valued by the society.

## **Student-Authored Paper Title: The Place of Supervision in Teacher Professional Development: A Case Study of Supervisory Practices of Education Officers in Ekiti State Primary Schools**

Author: Christianah Bamikole

Affiliation: University of the West Indies, Jamaica

Abstract: Supervision is connected to teacher professional development. However, as it is currently practiced in Ekiti State primary schools in Nigeria, it does not appear that this process is effectively contributing to teacher professional development. This is because the existing supervisory practice of Education Officers is hierarchical and authoritarian and does not promote the autonomy of the teacher as a professional. My research looks at current supervisory practices and the prevailing notion of professional development. The study is qualitative and it employs the case study method of inquiry. Participants in the study comprised of four selected Education Officers and twelve teachers from four different Local Government Education Authorities, of Ekiti State Universal Basic Education Board. Initial findings revealed that due to poor supervisory practices teachers are often excluded from decision making when it comes to issues relating to their professional growth. The research suggests that a more democratic process which sees the teacher as a reflective practitioner will usher in an authentic conception of teacher professional development. The significance of this study relates to the fact that proper educational supervision for teacher professional development would enhance the overall goal of instructional delivery.

## **Student/Supervisor-Authored Paper Title: Exploring the Relevance of Financial Literacy Education in a First Nation Community**

Authors: Levon Ellen Blue, Mark Brimble and Peter Grootenboer

Affiliation: Griffith University, Australia

**Abstract:** The relevance of financial literacy education (FLE) in a remote Canadian First Nation community was explored after a generic FLE workshop failed to gain traction. To understand the relevance of FLE in the Community, group interviews, a Community Summit and field notes were used as sources of evidence. During the analysis phase practice theory was used to examine the 'sayings', 'doings' and 'relatings' in a financial context. Next, we examined the possibilities of what can be achieved in the Community and find that site based and Community developed FLE was desired. Reported in this paper are the planning and initiating stages of site based education that occurred.

Congratulations to the presenters for their excellence in research!

All papers are available in the ICET 2014 58<sup>th</sup> World Assembly Proceedings.

### **Conclusion**

To conclude, the ICET 2014 58<sup>th</sup> World Assembly has made a great contribution to addressing these timely topics in education. While we are aware of diverse factors intertwined with the curriculum, pedagogy and leadership in Education, our delegates felt hopeful to and up to the exciting and inevitable challenges in the educational horizon. The success of the ICET 2014 assembly belongs to the collective hard work, and we, the planning committee, would like to once again to thank all who supported to make the conference a success:

To the Conference Planning Committee Members: Shirley Van Nuland, Jane Kiyonga, Diana Petrarca, Ann LeSage, Pat Vale-Dougherty, Maha Sadat, and Naureen Lakhani ably assisted by Jess Ward, Adam Baxter, Stephanie Fiamini, Lucas Giddings, Christina Sottile, Matthew Malbon, Tom Davis, Sabrina Bedjera, Jennie Eastcott, Sarah Abdelmassih, Joli Schneider-Benns, Stephanie Mavilla, Sheila Rhodes, and Kate Gibbings

To the ICET Community: the Board of Directors, the volunteers who reviewed the papers, the presenters, chairs, and discussants

To the UOIT Community: Faculties, Communications and Marketing, Office of Research Services, Information and Technology Services, Finance, Scheduling, Registrar's Office, Facilities, Security, Provost Office, President's Office, the Print Shop, Parking Services, UOIT Residence and Conference Centre (South Village), UOIT Aboriginal Centre

To the Oshawa Community: O'Neill Collegiate Ensemble Erin Collins Music Director with Kyeong Cho Principal, Isabella's, Luna, Paraphernalia Books 'n Stuff, Avanti's, The Table, Berry Hill, Extreme Pita, Sante Fe Salon, Candy Cause, Stuttering John's, Prospects Bar and Grill, Aramark, La Quinta, Quality Inn, Residence Inn by Marriott

To the Durham Region Community: Regional Municipality of Durham, Roger Anderson Regional Chair and CEO, Kerri King Tourism Manager, DaVinci Public School Ajax with Andrea Della Torre Principal, St. Josephine Bakhita Catholic School Ajax with Liz Spratt Principal, Pickering Museum Village, the Manse Uxbridge

To the wider Ontario Community: Ontario College of Teachers

To ICET Delegates

To all: Thank you, Merci, Megwich

# **The Role of Teacher Professional Development in the Use of Information and Communication Technologies (ICT): An Assessment of the e-Learning Intervention**

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**Abstract:** *A plethora of technology-based teacher professional development initiatives implemented with the goal of transforming teachers' classroom practice have not achieved the intended outcome due to a lack of pedagogic focus. This research provides an assessment of the value and contribution of the e-Learning professional development training on teachers' classroom practices. It employed a quantitative approach using a questionnaire in a survey of teachers from ten schools followed by qualitative observations and interviews. The results revealed that the majority of the teachers considered the training to be useful, but only a small percentage of the teachers were using technology in creative ways which did not reflect 'chalk and talk' methods in the classroom. The results reiterate calls for changes in the approach to professional development training in the use of technology from a technological model to new designs grounded in pedagogy.*

**Keywords:** Information and Communication Technologies (ICT), Professional development, Student-centred teaching, Pedagogic beliefs

## **Introduction**

Teacher professional development is a critical component in helping teachers to successfully bridge the gap between existing pedagogy and newly required pedagogy in a world where Information and Communication Technologies (ICT) has become common parlance in conversations about educational change and innovations. The aim of this paper is to broach for consideration that teacher professional development in the use of ICT needs to be reconceptualised from one that focuses on mastery of ICT skills to one that addresses existing pedagogic beliefs and practices. To substantiate this claim, this paper presents the findings of a quantitative study which provided an assessment of the value and contribution of the e-Learning teacher professional development training on teachers' classroom practices as well as the preliminary qualitative findings investigating how and why teachers use ICT in their classrooms in the ways that they do.

These findings confirm the need for a more in-depth understanding of the role of teacher professional development in the use of ICT in enhancing pedagogy since defining the most propitious approach to teacher professional development in the use of ICT has proven to be a challenge. The United Nations Educational, Scientific and Cultural Organization (UNESCO) confirms that countries around the world face urgent challenges in this respect due to the rapid development of technologies, the required financial investments and the need to have a clear vision of the role that teachers have to play in harnessing the power of ICT in the classroom and beyond (UNESCO, 2011). Therefore, the use of ICT in the classroom does not seem to reside in giving teachers access to it. The challenge is that ICT use in the classroom necessitates certain fundamental changes to practices cemented in existing beliefs about the teaching and learning

process which require effective teacher professional development interventions capable of transforming these beliefs and practices. In tandem with Fullan (1996) if change is to happen it requires teachers to understand themselves and be understood. It is said that all teachers have theories about how their students learn which informs their approach to teaching (Bruner, 1996 as cited in Mumtaz, 2000). Therefore, making more effective use of technology requires a deeper understanding of how and why teachers teach in the ways that they do.

The topic being investigated is of significance to teacher education and development in the use of ICT locally and internationally owing to the emphasis being placed on the use of technology in the classroom as a means of advancing national agendas for workforce and economic development. Further, a plethora of research findings reveal that teachers' classroom practices remain relatively unchanged in spite of learning about ICT in teacher professional development training and therefore a more in depth understanding of what accounts for the ways in which teachers put into practice the knowledge gained from teacher professional development is needed. The findings presented in this paper contributes to this required understanding which seems to be lacking in the research literature. Congruent to Zhou and Frank (2003) while the factors affecting teachers' use of ICT are important in examining the issue, future research should pay more attention to understanding the relationships and processes of how the various factors affect technology uses in schools rather than identifying new factors.

UNESCO (2011) and other organizations worldwide purport that ICT holds the potential to revolutionize students' skills and competencies and as such there is an ubiquitous demand for teacher professional development in the use of ICT; however educational transformation can only happen when policy makers and ICT instructional designers are able to make informed decisions on how to develop and implement teacher professional development in the use of ICT to achieve this goal. The information needed to guide such decisions stems from research into teacher professional development in the use of ICT. Thus, the findings being presented in this paper hold the potential to make a positive contribution to the research literature on teacher professional development in the use of ICT.

## **Review of Literature**

### **Teacher Professional Development in the use of ICT in Jamaica**

The professional development programme used in exploring the issue was the e-Learning Jamaica project which was implemented in secondary schools in Jamaica. The e-Learning Jamaica Project which started in 2004 aimed to improve the quality of education being delivered in Jamaica at the secondary level by training teachers in modern technological methodologies namely ICT and how to integrate these into their teaching (Peart, 2011). Subsequent to this training, it was expected that the students' performance would improve as a result of the changes in how teachers delivered instruction in the classroom (Peart, 2011). Through the project the secondary schools were provided with ICT equipment and other supporting materials as well as in-service training which averaged US \$176,000 per school (Crawford, 2011). The training was standard across the disciplines and implemented in phases over a number of years. A total of 12,000 teachers, lecturers and education officers were trained in the programme island wide (Crawford, 2011).

The professional development approach focussed on mastery in the use of ICT with the model used in the training reflecting theory and demonstrations plus practice, which Joyce and

Showers (1995) identify as one of four professional development models. Phase one provided theory and training in basic ICT familiarization, utilization and management skills; phase two dealt with integration of technology into instructional delivery. The integration training covered characteristics of technology tools and their uses, digital devices, using the internet for research and teaching, creating 2D and 3D animations, digital stories, the use of games, blogs and podcasts (Crawford, 2011). The evaluation of the project's success is linked to an assessment of the students' performance on written tests known as the e-Learning Grade Nine Diagnostic Tests which assess students' performance in Mathematics, English Language and Science based on mastery of the content covered by the national school curriculum (Peart, 2011). The results of these tests reveal low levels of student achievement (Faulkner, 2009).

### **Evaluating ICT professional development interventions**

Less than desirable student performance is an indication of marginal success of the teacher professional development which according to Joyce and Showers (1995) is a common result of the model of professional development used in the e-Learning Jamaica Project. However, while students' performance is an indication of success or failure of teacher professional development in the use of ICT, it is more than just student performance; it is how the technology is being used and the development of certain skills and competencies. Lawless and Pellegrino (2007) state that when considering what elements are critical in the context of technology professional development for teachers there are three main categories to consider: programmatic issues, teacher change and student achievement. Hence, the professional development programme must be evaluated in terms of the design, objectives and implementation of the programme as well as the teachers' classroom practices subsequent to the training.

In tandem with Kattou, Kontoyianni and Christou (2009), it is not the use of technology that determines the success of the professional development intervention; rather it is what the teacher does with the new knowledge and skills that determines the success of the intervention. Duhaney (2001) suggests that successful teacher professional development in the use of ICT would reflect changes in teachers' classroom practices which would be evidenced by more student centred activities supported by the use of ICT. Jung (2005) and Schibeci, MacCullum, Cumming-Potvin, Durrant, Kissane, and Miller (2008) concur that the most important impact of ICT training is really a change in pedagogical practice that facilitates students' learning and achievement as teachers adapt new and better approaches to instruction. The inclusion of the words new and better suggest a move from traditional teaching strategies to more creative student centred strategies.

#### ***Student-centred use of ICT in the classroom.***

Non-traditional teaching activities are often characterized as the use of creative, student-centred activities. Kattou, Kontoyianni and Christou (2009), having researched this issue, reported that the use of open-ended activities, differentiation according to students' needs and the use of technology in ways that place less emphasis on the teachers' knowledge are activities that foster student-centred teaching. In other words, by placing more emphasis on the students' active construction of meaning and participation in learning, more student-centred teaching is facilitated. This conceptualization of student-centred teaching emerges from the constructivist paradigm (Fosnot, 1996; Jain, Tedman & Tedman, 2007).

While many teachers associate the use of technology with non-traditional student-centred teaching it is often times not the case as is evidenced in the findings of research conducted by Ertmer and Ottenbreit-Leftwich (2010) and Russell, Bebell, O'Dwyer, and Oconnor (2003) who report that teachers' use of ICT had a proclivity to be low end and more frequently used outside the classroom. Low end use of technology is described as the use of technology to support traditional, teacher-directed uses substituting but not changing established classroom practices (Ertmer & Ottenbreit-Leftwich, 2010).

### **Pedagogy and Practice**

The extant literature postulates that the teachers' experience in professional development influences their construction of knowledge of teaching with ICT. This reflects a constructivist philosophy in that it is being suggested that the experience in which the idea is embedded is critical to the individual's understanding of technology (Duffy & Jonassen, 1992; Jonassen, Davidson, Collins, Campbell and Haag, 1995; Pear & Todd, 2002; Jain & Tedman, 2007). It is also suggested that professional development programmes can help teachers to deepen their knowledge and transform their teaching (Borko, 2004). The deepening of knowledge through involvement in professional development activities is said to result in changes in teachers' pedagogic beliefs about teaching which play an important role in their classroom practices. Becker and Reil (2000) state that involvement in professional development activities are likely to impact teachers' philosophy of teaching in ways that result in an emerging philosophy consistent with constructivist philosophy. Watson (2001) argues that teachers' recognition and enjoyment of the pedagogic potential of ICT is owed to their philosophical underpinnings about teaching. Therefore, there is a connection to be made between the use of technology in non-traditional, student-centred ways and the teachers' pedagogic beliefs and involvement in teacher professional development in the use of ICT.

### **The Research**

The topic was initially explored using a quantitative evaluative research. However, a follow up research is being conducted to get a more in-depth understanding of the topic. Thus, the findings being reported reflect both two phases of data collection: the quantitative study and the preliminary findings of the current qualitative investigation. By doing this, a more complete picture of the topic being researched is presented in this paper. The researcher's philosophical stance is that research paradigms are not necessarily incommensurable, rather they can coexist and provide multiple perspectives; and that decisions regarding how research is conducted and reported should be based on "what works" owing to the pivotal importance of the questions asked and the use of multiple methods of data collection to inform the issue under study (Tashakkori & Teddlie, 2003). Thus, the researcher has chosen to combine the findings of both quantitative and qualitative research into the topic to present a more comprehensive picture of the issue under investigation. The findings presented reflects the emergence of a mixed methods approach. Congruent to Hanson, Creswell, Clark, Petska and Creswell (2005) mixing both quantitative and qualitative does more than triangulation as it elaborates on the results from the other method, may help to develop or inform the other method and may recast results from one method to the other method.

### **Research Questions**

The quantitative study sought answers to the following questions:

1. What are teachers' rating of the orientation and training they received under the e-Learning Jamaica Project?
2. To what extent has the ICT training provided by the e-Learning intervention changed the way the teachers teach to be more student centred?
3. What are the ways in which teachers use the technologies provided in their teaching?

The preliminary findings of the current study have been collected qualitatively. The data collected aims to understand the following questions:

1. How do teachers use technology in their teaching?
2. Why do teachers use the technology in the ways that they do?
3. What are teachers' perceptions of the role of ICT in their lesson delivery?

## Methods

### *Quantitative*

The quantitative research provided an assessment of the value and contribution of the e-Learning Jamaica project which the Ministry of Education implemented to enhance lesson delivery and improve students' performance in schools. The data was gathered using a questionnaire in the survey of 100 teachers from ten randomly selected participating schools in two of the 14 parishes in Jamaica namely, Kingston and St Andrew. The researcher chose to focus on this geographic location since these two parishes have the most secondary schools in Jamaica. Further, being a single researcher with limited resources it was decided that it would be financially prudent to select parishes with the largest concentration of participating schools. There was a 72% response rate.

### *The Questionnaire*

The questionnaire comprised a total of 13 questions, three of the questions allowed for open-ended qualitative responses and the other 10 questions were closed ended quantitative questions. The items gathered data on school type and subject taught by the teachers, the teachers' level of attendance/participation in the two phases of the training (training to use the technologies and the technology integration training), their rating of the professional development training they received and the extent to which they think their classroom practices had changed as well as how they were using ICT in their classrooms as a consequence. In order to control for certain variables identified in the literature as factors affecting the use of technology the instrument also gathered data on the teachers' confidence, competence and utilization of technology, the subjects taught and their reasons (motives) for using technology. The table below presents a sample of the quantitative items included on the instrument.

Table 1 *Sample of Items from the Questionnaire*

1. How do you rate the e-Learning training in which you participated on a scale of 1 - 4, where 4 is the highest?
2. How do you rate the extent to which you think that your classroom practices have changed as a result of participation in the e-Learning training on a scale of 1 - 4, where 4 is the highest?
3. Please indicate your rating of your level of integration of technology in your teaching based on the areas of integration listed below.
4. Select from the list of technology-based teaching activities below those activities that you use in teaching in your classroom.
5. Please indicate your rating of your level of comfort with each of the technologies listed below and your level of utilization of each technology in your teaching.

### ***Reliability and validity of the Instrument***

The questionnaire was first vetted by an expert in the field of educational technology and programme evaluation to ensure content validity. Items for the scales were based on the literature and developed using computation. The instrument was then pilot tested and the Cronbach's Alpha calculated to ensure the internal consistency of the scales on the instrument. The instrument had a reliability co-efficient deleted which improved the Cronbach's Alpha to 0.791 which according to Bastik and Matalon (2007) is acceptable. The questionnaire was then administered to the sample.

### ***Data analysis procedures***

The responses to the questionnaire were coded and entered into the computer software Statistical Package for the Social Sciences (SPSS, version 14) and the results were generated and analysed using appropriate techniques including descriptive statistics and inferential statistics. The percentage scores, means, and standard deviations based on participants' responses were generated using descriptive statistics and then inferential statistics such as analysis of variance and Pearson's Correlation were used to compute levels of significance and effect of the relationship between variables and the magnitude and direction of the relationships of these variables to determine the extent to which factors identified in the literature were of significance to the findings of this study.

The open ended qualitative items included on the questionnaire were analysed using constant comparative analysis. The responses were coded, categories and themes developed as well as the frequency of responses noted. A sample of the qualitative items included in the questionnaire is presented below.

Table 2 *Qualitative Questions*

1. Why do you use technology in your classroom teaching activities?
2. List some ways in which you think you make creative use of technology in your teaching that are not mentioned on the list.
3. Please provide three examples of classroom teaching practices involving the use of technology that you now use in your teaching that you were not using before the e-Learning training.

### ***Qualitative Data***

The qualitative data gathered seeks to understand exactly how the teachers are using technology in their teaching, their reasons for using the technology in the ways that they do and their perception of the role of technology in the teaching and learning process.

The participants for this research were purposefully selected from the teachers who participated in the quantitative phase. The data collected and analysed at the time of submission of this paper included a total of 15 hours of field observations of four teachers in their natural setting as they taught their lessons using technology-based activities and interviews with two of the four teachers. Each teacher was observed in at least three one hour lessons. Interviews were conducted with two of the teachers following the field observations. The interview participants were selected based on the analysis of the observation field notes. Semi-structured interviews were used.

### ***Data Analysis Procedures***

The interviews were first transcribed and coded and the participants asked to verify the transcripts. Priori coding was used for the filed notes from the observations and constant comparative analysis used for the interviews. The interviews were also independently coded by a second researcher to ensure reliability. Analytical memo was also employed during the data analysis. The final step in the data analysis process involved identifying the key concepts that reflected the meanings and conclusions drawn from the data.

## **Results**

### **The Value and Contribution of the e-Learning Training on Teachers Classroom Practices**

#### ***Participation and rating of the training***

The results of the assessment of the e-Learning training revealed that most of the teachers in the sample attended a little more than half of the training provided in phase one which covered basic ICT use. The results also revealed that the level of participation of these teachers in the technology integration training offered in phase two was significantly less; only 38% of the teachers participated in the integration training. The teachers were also asked to rate the usefulness of the training they received. The findings revealed that 72% of the teachers rated the training as helpful and that 80% felt that their classroom practices were enhanced as a result.

#### ***Technology-based activities used in teaching.***

The teachers were asked to indicate the number of technology-based activities that they used in their lessons. The results revealed that the majority of the teachers (78 %) were using 2-3 technology based activities in their teaching while a few used more than three or less than two subsequent to the training.

The types of technology-based activities that were being used by the teachers were also examined to get a more detailed description. This was done using an inventory of the different technology-based teaching activities; the uses were categorized in the analysis by the researcher as teacher-centred or student-centred based on descriptions provided in the literature. The teachers were asked to select the activities that they used in their lessons.

Table 3 *Types of Technology-based Activities Used by the Teachers*

Teacher-centred Activities	% of teachers utilizing	Student-centred Activities	% of teachers utilizing
Power Point to present content	79	Group sites	06
Present content via video clips	57	Chat sessions	06
Search for information online	72	Blog posts	13
Access teaching resources	40	Online quizzes	46
E-mail assignments	40	<b><i>Other</i></b>	<b><i>21</i></b>
Teach students how to use ICT	47		

The finding revealed that most of the uses of technology by the teachers were low end as described by Ertmer and Ottenbreit-Leftwich (2010). The other strategies which are more student-centred were being used by less than half of the teachers (see table 3 above). An open-ended item was also included in exploring this issue that asked teachers to describe any other creative technology based activities that they used that was not included in the list of options.

The results revealed that 21% of the teachers had used strategies other than those included in the instrument. The activities described by the few teachers who provided other ways in which they used technology included the use of Skype and Podcast to interact with students, allowing students to record their fieldtrips and present the video to the class, creating puzzles and games that students played and allowing students to access simulation exercises.

### ***Factors affecting the use of technology***

The results of the analysis of variance and correlation confirmed the postulations of other researchers that teachers' confidence, competence, and the subjects taught affect their perceptions and use of ICT in their teaching. The results of the Pearson correlation revealed a strong positive correlation between teachers' level of comfort with technology and their utilization of the technology ( $r = 0.80$ ,  $p < 0.05$ ). The reliability coefficient was calculated ( $r^2 = 0.64$ ) which revealed that the teachers' perception of their level of comfort with technology accounted for 64% of the level of utilization which supports postulations made by Ainley, Eveleigh, Freeman and Omalley (2010) and Peralta and Costa (2007). The findings from the ANOVA ( $\eta^2 = 0.16$ ) with the level of significance being 0.14 or greater as recommended by Bastik and Matalon, (2007) also revealed that the subjects taught by the teachers had a significant impact on the teachers' perceptions of the usefulness of the training they received as proposed by Desimone, Porter, Garet, Yoon and Birman (2001) and Lawless & Pellegrino (2007). Thus, teachers who felt that content covered in the training was relevant to the subject they teach gave the training higher ratings than those who did not.

While findings generated from the inferential statistics helped to explain the teachers' perceptions of the training and the level of utilization of technology, it provided little or no explanation of the teachers' understanding of the role of technology in teaching based on the knowledge gained in the professional development and why they chose to use the technologies in the ways that they did, nor other factors identified in the literature such as teachers' beliefs about teaching. Hence, a more in depth investigation was still required.

### **How and why do teachers use technology in the ways that they do?**

#### ***Field Notes – Observation***

The two main themes that emerged from the priori codes assigned to the observation field notes reflected patterns of teacher and student behaviours: ICT-teacher-centred activities (students are passive observers of the technology in use) and ICT-student-centred activities (students are active participants using the technology). The descriptive codes assigned identified the pattern of behaviour of students as either active participants using the technology or students are passive observers of the technology in use. The teachers' activities were coded as monitoring, coaching, modelling and instruction.

Of the teachers observed teaching with technology only one of the teachers –named Miss KB – engaged predominantly in student-centred activities in the lessons. The students were active participants using technology and the students displayed on-task, active learning behaviours the majority of the time. She allowed the students to use the computers to create concept maps to represent their ideas, use the internet to search for information, e-mail their work to each other, use Microsoft Word Review tool to assess each other's work and allowed the students to create Power Point presentations to share their work with the class. The teacher also engaged frequently in modelling ICT tasks, monitoring students' activities while they used the

computers as well as coaching and content instruction. Miss KB was exposed to more professional development training in the use of ICT than the other teachers which may explain her use of the technology in student-centred ways. Watson (2001) states that few teachers who use computers in their classrooms can relate the use of technology to their pedagogic strategy and so those teachers who are able to do so is because it has a particular resonance with their pedagogic philosophy. Becker and Reil (2000) also state that teachers who are more engaged in professional development activities are likely to have a philosophy of teaching consistent with constructivist philosophy and make more student centred uses of ICT.

Another teacher – Miss JS – also showed some evidence of the use of technology in student-centred ways. In two instances, students were engaged in active use of the technologies. Students were required to type responses to comprehension questions in Microsoft Word and to use I-Pads to video record role-plays in another lesson. The analysis of the lessons observed for the other teachers – Miss JS, Miss LC and Miss FC – revealed that the activities involving the use of technology in their lessons were primarily teacher-centred activities. The students were passive observers of technology in use in all of the lessons. Typical activities involved students watching digital stories or videos followed by the completion of comprehension questions orally or in writing. In other lessons, the students read content displayed on slides from Power Point presentations and then the teacher would discuss the content.

### ***Interviews***

In analysing the responses of the two interviewees, Miss JS and Miss KB, it was evident that their beliefs about pedagogy were similar; however their beliefs and understanding of the role of technology in pedagogy were different. In comparing the teachers' pedagogic beliefs it seemed that both teachers believe that teaching and learning should be student-centred. Similar explanations of student-centred pedagogy were provided and included the use of concepts such as “discovery learning, and teacher as facilitator and guide.” However their reasons for using technology in their lessons and the role they think technology played in their lessons were different. Miss KB used technology because she felt that her students needed to know how to use technology for academic purposes and Miss JS simply wanted to try something new. These differences in their beliefs about the role technology plays in teaching were reflected in how they planned and used technology in their lessons. Miss KB believed that technology is important in developing certain skills in academic writing and she made use of the technology in tandem with specific objectives that she wanted to use technology to facilitate. Miss JS on the other hand, believes that the use of technology in teaching is a change to a new and better pedagogical approach and did not plan for the use of technology with any particular focus or objective. This would suggest that her understanding of the role of technology is one that equates technology use with automatic lesson enhancement. It is also evident that there is some amount of incommensurability in the views she posited by Miss JS and her classroom practices, she stated that she believes that lessons should allow for student centred discovery learning approaches however she used technology primarily in teacher-centred ways, she asked the students to read the comprehension projected on the slides and type the responses to the comprehension questions on the computer.

Both teachers felt that technology use in teaching is good, but for different reasons. Miss KB felt that the use of technology in her lessons made concepts easier to grasp and helped in developing certain skills in writing while Miss JS felt that students' interest was heightened.

When asked if they felt that technology use can be teacher-centred both agreed. Miss KB stated that “Some persons just can’t let go of the traditional way where you are the centre of attention.” Miss JS on the other hand confessed that in reflecting on the issue she has been guilty of this “I have had experience ... I was merely using technology for presentation and that made the lesson too teacher-centred.” However she expressed concerns about her competence in using technology for teaching, this was confirmed by the perception of the experience in the training. Both teachers had participated in the e-Learning familiarization and utilization training and felt that “one shot” training in the use of the equipment was helpful but not adequate to enable effective use of the technology. Miss JS lamented “nobody taught us how to use it in a lesson, one off training is not enough.”

## **Discussion**

The results of the research confirm the findings of Ertmer and Ottenbreit-Leftwich (2010) and Russell et al. (2003) that technology is increasingly being utilized in the classroom. However, the challenge based on the findings of this research is that the activities which would allow for more student centred teaching and engagement – such as the use of group sites and chat sessions, blogs, and online quizzes – are underutilized by most of the teachers. The absence of these activities and the frequently occurring use of Power Point and video clips to present information suggest that teachers are becoming adept at what Ertmer and Ottenbreit-Leftwich (2010) describe as low end use of technology. The low end use of ICT was further confirmed by the analysis of the data from the observations which revealed that most of the activities being used were teacher-centred. This gives credence to the point that, although teachers are becoming more proficient in their use of ICT, there is a high risk that teachers will integrate technology into their pre-existing teacher-centred pedagogy and use it to perpetuate same.

The findings of the observations revealed that teachers’ beliefs about teaching in general and their beliefs about the role of ICT in the classroom and their practice in the classroom are not necessarily aligned as in the case of Miss JS. The findings also revealed very little evidence of the use of technology to facilitate the students’ active construction of meaning by most of the teachers. It is also suggested from the results that many teachers do not make the technology their own by developing their own applications in response to situational demands which would be descriptive of constructivist, student-centred application of the knowledge of the professional development in their classroom (Duffy & Jonassen, 1992). The fact that many teachers did not provide any other activities and that generic uses were observed suggests a limited understanding of the use of technology based on the knowledge gleaned from the professional development activity. Many teachers seem to have fallen victims to the teacher-centred application of technology, which could have a lot to do with the “one shot” professional development training which does not cater for deep learning required to transform existing practices and pedagogy.

## **Conclusion**

It is too often the rhetoric that that technology holds the potential to transform teachers’ classroom practices. It is not the technology that holds the potential to enhance teachers’ classroom practices; rather, it is an understanding of how to design constructivist, student-centred activities. Considering that in most cases the use of technology is failing to facilitate new and better approaches to teaching based on the results presented in this paper which corroborate claims made by other researchers, it would suggest that teacher professional development in the

use of ICT is still searching for a model that fits. The urgent need for a redesign of ICT teacher professional development interventions cannot be ignored. The continued focus on mastery of the technology and other ICT related skills clearly does not hold the answer to effective teacher professional development in the use of ICT. The continued use of one shot generic, standardized teacher professional development models to be applied across subject areas also does not seem ideal; rather there needs to be a central focus on teachers' existing beliefs and their understanding of ICT based pedagogy in the teaching of teachers specific subject matter content. Transformation begins as an internal process; therefore a shift from a technologically driven design to a more pedagogical design of ICT teacher professional development is urgently needed.

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# The Role of Teacher Professional Development in the Use of Information and Communication Technologies (ICT): An Assessment of the e-Learning Intervention

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**Abstract:** *A plethora of technology-based teacher professional development initiatives implemented with the goal of transforming teachers' classroom practice have not achieved the intended outcome due to a lack of pedagogic focus. This research provides an assessment of the value and contribution of the e-Learning professional development training on teachers' classroom practices. It employed a quantitative approach using a questionnaire in a survey of teachers from ten schools followed by qualitative observations and interviews. The results revealed that the majority of the teachers considered the training to be useful, but only a small percentage of the teachers were using technology in creative ways which did not reflect 'chalk and talk' methods in the classroom. The results reiterate calls for changes in the approach to professional development training in the use of technology from a technological model to new designs grounded in pedagogy.*

**Keywords:** Information and Communication Technologies (ICT), Professional development, Student-centred teaching, Pedagogic beliefs

## Introduction

Teacher professional development is a critical component in helping teachers to successfully bridge the gap between existing pedagogy and newly required pedagogy in a world where Information and Communication Technologies (ICT) has become common parlance in conversations about educational change and innovations. The aim of this paper is to broach for consideration that teacher professional development in the use of ICT needs to be reconceptualised from one that focuses on mastery of ICT skills to one that addresses existing pedagogic beliefs and practices. To substantiate this claim, this paper presents the findings of a quantitative study which provided an assessment of the value and contribution of the e-Learning teacher professional development training on teachers' classroom practices as well as the preliminary qualitative findings investigating how and why teachers use ICT in their classrooms in the ways that they do.

These findings confirm the need for a more in-depth understanding of the role of teacher professional development in the use of ICT in enhancing pedagogy since defining the most propitious approach to teacher professional development in the use of ICT has proven to be a challenge. The United Nations Educational, Scientific and Cultural Organization (UNESCO) confirms that countries around the world face urgent challenges in this respect due to the rapid development of technologies, the required financial investments and the need to have a clear vision of the role that teachers have to play in harnessing the power of ICT in the classroom and beyond (UNESCO, 2011). Therefore, the use of ICT in the classroom does not seem to reside in

giving teachers access to it. The challenge is that ICT use in the classroom necessitates certain fundamental changes to practices cemented in existing beliefs about the teaching and learning process which require effective teacher professional development interventions capable of transforming these beliefs and practices. In tandem with Fullan (1996) if change is to happen it requires teachers to understand themselves and be understood. It is said that all teachers have theories about how their students learn which informs their approach to teaching (Bruner, 1996 as cited in Mumtaz, 2000). Therefore, making more effective use of technology requires a deeper understanding of how and why teachers teach in the ways that they do.

The topic being investigated is of significance to teacher education and development in the use of ICT locally and internationally owing to the emphasis being placed on the use of technology in the classroom as a means of advancing national agendas for workforce and economic development. Further, a plethora of research findings reveal that teachers' classroom practices remain relatively unchanged in spite of learning about ICT in teacher professional development training and therefore a more in depth understanding of what accounts for the ways in which teachers put into practice the knowledge gained from teacher professional development is needed. The findings presented in this paper contributes to this required understanding which seems to be lacking in the research literature. Congruent to Zhao and Frank (2003) while the factors affecting teachers' use of ICT are important in examining the issue, future research should pay more attention to understanding the relationships and processes of how the various factors affect technology uses in schools rather than identifying new factors.

UNESCO (2011) and other organizations worldwide purport that ICT holds the potential to revolutionize students' skills and competencies and as such there is an ubiquitous demand for teacher professional development in the use of ICT; however educational transformation can only happen when policy makers and ICT instructional designers are able to make informed decisions on how to develop and implement teacher professional development in the use of ICT to achieve this goal. The information needed to guide such decisions stems from research into teacher professional development in the use of ICT. Thus, the findings being presented in this paper hold the potential to make a positive contribution to the research literature on teacher professional development in the use of ICT.

## **Review of Literature**

### **Teacher Professional Development in the use of ICT in Jamaica**

The professional development programme used in exploring the issue was the e-Learning Jamaica project which was implemented in secondary schools in Jamaica. The e-Learning Jamaica Project which started in 2004 aimed to improve the quality of education being delivered in Jamaica at the secondary level by training teachers in modern technological methodologies namely ICT and how to integrate these into their teaching (Peart, 2011). Subsequent to this training, it was expected that the students' performance would improve as a result of the changes in how teachers delivered instruction in the classroom (Peart, 2011). Through the project the secondary schools were provided with ICT equipment and other supporting materials as well as in-service training which averaged US \$176,000 per school (Crawford, 2011). The training was standard across the disciplines and implemented in phases over a number of years. A total of 12,000 teachers, lecturers and education officers were trained in the programme island wide (Crawford, 2011).

The professional development approach focussed on mastery in the use of ICT with the model used in the training reflecting theory and demonstrations plus practice, which Joyce and Showers (1995) identify as one of four professional development models. Phase one provided theory and training in basic ICT familiarization, utilization and management skills; phase two dealt with integration of technology into instructional delivery. The integration training covered characteristics of technology tools and their uses, digital devices, using the internet for research and teaching, creating 2D and 3D animations, digital stories, the use of games, blogs and podcasts (Crawford, 2011). The evaluation of the project's success is linked to an assessment of the students' performance on written tests known as the e-Learning Grade Nine Diagnostic Tests which assess students' performance in Mathematics, English Language and Science based on mastery of the content covered by the national school curriculum (Peart, 2011). The results of these tests reveal low levels of student achievement (Faulkner, 2009).

### **Evaluating ICT professional development interventions**

Less than desirable student performance is an indication of marginal success of the teacher professional development which according to Joyce and Showers (1995) is a common result of the model of professional development used in the e-Learning Jamaica Project. However, while students' performance is an indication of success or failure of teacher professional development in the use of ICT, it is more than just student performance; it is how the technology is being used and the development of certain skills and competencies. Lawless and Pellegrino (2007) state that when considering what elements are critical in the context of technology professional development for teachers there are three main categories to consider: programmatic issues, teacher change and student achievement. Hence, the professional development programme must be evaluated in terms of the design, objectives and implementation of the programme as well as the teachers' classroom practices subsequent to the training.

In tandem with Kattou, Kontoyianni and Christou (2009), it is not the use of technology that determines the success of the professional development intervention; rather it is what the teacher does with the new knowledge and skills that determines the success of the intervention. Duhaney (2001) suggests that successful teacher professional development in the use of ICT would reflect changes in teachers' classroom practices which would be evidenced by more student centred activities supported by the use of ICT. Jung (2005) and Schibeci, MacCullum, Cumming-Potvin, Durrant, Kissane, and Miller (2008) concur that the most important impact of ICT training is really a change in pedagogical practice that facilitates students' learning and achievement as teachers adapt new and better approaches to instruction. The inclusion of the words new and better suggest a move from traditional teaching strategies to more creative student centred strategies.

#### ***Student centred use of ICT in the classroom.***

Non-traditional teaching activities are often characterized as the use of creative, student-centred activities. Kattou, Kontoyianni and Christou (2009), having researched this issue, reported that the use of open-ended activities, differentiation according to students' needs and the use of technology in ways that place less emphasis on the teachers' knowledge are activities that foster student-centred teaching. In other words, by placing more emphasis on the students' active

construction of meaning and participation in learning, more student-centred teaching is facilitated. This conceptualization of student-centred teaching emerges from the constructivist paradigm (Fosnot, 1996; Jain, Tedman & Tedman, 2007).

While many teachers associate the use of technology with non-traditional student-centred teaching it is often times not the case as is evidenced in the findings of research conducted by Ertmer and Ottenbreit-Leftwich (2010) and Russell, Bebell, O'Dwyer, and Oconnor (2003) who report that teachers' use of ICT had a proclivity to be low end and more frequently used outside the classroom. Low end use of technology is described as the use of technology to support traditional, teacher-directed uses substituting but not changing established classroom practices (Ertmer & Ottenbreit-Leftwich, 2010).

### **Pedagogy and Practice**

The extant literature postulates that the teachers' experience in professional development influences their construction of knowledge of teaching with ICT. This reflects a constructivist philosophy in that it is being suggested that the experience in which the idea is embedded is critical to the individual's understanding of technology (Duffy & Jonassen, 1992; Jonassen, Davidson, Collins, Campbell and Haag, 1995; Pear & Todd, 2002; Jain & Tedman, 2007). It is also suggested that professional development programmes can help teachers to deepen their knowledge and transform their teaching (Borko, 2004). The deepening of knowledge through involvement in professional development activities is said to result in changes in teachers' pedagogic beliefs about teaching which play an important role in their classroom practices. Becker and Reil (2000) state that involvement in professional development activities are likely to impact teachers' philosophy of teaching in ways that result in an emerging philosophy consistent with constructivist philosophy. Watson (2001) argues that teachers' recognition and enjoyment of the pedagogic potential of ICT is owed to their philosophical underpinnings about teaching. Therefore, there is a connection to be made between the use of technology in non-traditional, student-centred ways and the teachers' pedagogic beliefs and involvement in teacher professional development in the use of ICT.

### **The Research**

The topic was initially explored using a quantitative evaluative research. However, a follow up research is being conducted to get a more in-depth understanding of the topic. Thus, the findings being reported reflect both two phases of data collection: the quantitative study and the preliminary findings of the current qualitative investigation. By doing this, a more complete picture of the topic being researched is presented in this paper. The researcher's philosophical stance is that research paradigms are not necessarily incommensurable, rather they can coexist and provide multiple perspectives; and that decisions regarding how research is conducted and reported should be based on "what works" owing to the pivotal importance of the questions asked and the use of multiple methods of data collection to inform the issue under study (Tashakkori & Teddlie, 2003). Thus, the researcher has chosen to combine the findings of both quantitative and qualitative research into the topic to present a more comprehensive picture of the issue under investigation. The findings presented reflects the emergence of a mixed methods approach. Congruent to Hanson, Creswell, Clark, Petska and Creswell (2005) mixing both quantitative and qualitative does more than triangulation as it elaborates on the results from the

other method, may help to develop or inform the other method and may recast results from one method to the other method.

### Research Questions

The quantitative study sought answers to the following questions:

1. What are teachers' rating of the orientation and training they received under the e-Learning Jamaica Project?
2. To what extent has the ICT training provided by the e-Learning intervention changed the way the teachers teach to be more student centred?
3. What are the ways in which teachers use the technologies provided in their teaching?

The preliminary findings of the current study have been collected qualitatively. The data collected aims to understand the following questions:

1. How do teachers use technology in their teaching?
2. Why do teachers use the technology in the ways that they do?
3. What are teachers' perceptions of the role of ICT in their lesson delivery?

### Methods

#### *Quantitative*

The quantitative research provided an assessment of the value and contribution of the e-Learning Jamaica project which the Ministry of Education implemented to enhance lesson delivery and improve students' performance in schools. The data was gathered using a questionnaire in the survey of 100 teachers from ten randomly selected participating schools in two of the 14 parishes in Jamaica namely, Kingston and St Andrew. The researcher chose to focus on this geographic location since these two parishes have the most secondary schools in Jamaica. Further, being a single researcher with limited resources it was decided that it would be financially prudent to select parishes with the largest concentration of participating schools. There was a 72% response rate.

#### *The Questionnaire*

The questionnaire comprised a total of 13 questions, three of the questions allowed for open-ended qualitative responses and the other 10 questions were closed ended quantitative questions. The items gathered data on school type and subject taught by the teachers, the teachers' level of attendance/participation in the two phases of the training (training to use the technologies and the technology integration training), their rating of the professional development training they received and the extent to which they think their classroom practices had changed as well as how they were using ICT in their classrooms as a consequence. In order to control for certain variables identified in the literature as factors affecting the use of technology the instrument also gathered data on the teachers' confidence, competence and utilization of technology, the subjects taught and their reasons (motives) for using technology. The table below presents a sample of the quantitative items included on the instrument.

Table 1 *Sample of Items from the Questionnaire*

1. How do you rate the e-Learning training in which you participated on a scale of 1 - 4, where 4 is the highest?
2. How do you rate the extent to which you think that your classroom practices have changed as a result of participation in the e-Learning training on a scale of 1 - 4, where 4 is the highest?

3. Please indicate your rating of your level of integration of technology in your teaching based on the areas of integration listed below.
4. Select from the list of technology-based teaching activities below those activities that you use in teaching in your classroom.
5. Please indicate your rating of your level of comfort with each of the technologies listed below and your level of utilization of each technology in your teaching.

*Reliability and validity of the Instrument.*

The questionnaire was first vetted by an expert in the field of educational technology and programme evaluation to ensure content validity. Items for the scales were based on the literature and developed using computation. The instrument was then pilot tested and the Cronbach’s Alpha calculated to ensure the internal consistency of the scales on the instrument. The instrument had a reliability co-efficient deleted which improved the Cronbach’s Alpha to 0.791 which according to Bastik and Matalon (2007) is acceptable. The questionnaire was then administered to the sample.

*Data analysis procedures*

The responses to the questionnaire were coded and entered into the computer software Statistical Package for the Social Sciences (SPSS, version 14) and the results were generated and analysed using appropriate techniques including descriptive statistics and inferential statistics. The percentage scores, means, and standard deviations based on participants’ responses were generated using descriptive statistics and then inferential statistics such as analysis of variance and Pearson’s Correlation were used to compute levels of significance and effect of the relationship between variables and the magnitude and direction of the relationships of these variables to determine the extent to which factors identified in the literature were of significance to the findings of this study.

The open ended qualitative items included on the questionnaire were analysed using constant comparative analysis. The responses were coded, categories and themes developed as well as the frequency of responses noted. A sample of the qualitative items included in the questionnaire is presented below.

Table 2 *Qualitative Questions*

1. Why do you use technology in your classroom teaching activities?
2. List some ways in which you think you make creative use of technology in your teaching that are not mentioned on the list.
3. Please provide three examples of classroom teaching practices involving the use of technology that you now use in your teaching that you were not using before the e-Learning training.

*Qualitative Data*

The qualitative data gathered seeks to understand exactly how the teachers are using technology in their teaching, their reasons for using the technology in the ways that they do and their perception of the role of technology in the teaching and learning process.

The participants for this research were purposefully selected from the teachers who participated in the quantitative phase. The data collected and analysed at the time of submission of this paper included a total of 15 hours of field observations of four teachers in their natural setting as they taught their lessons using technology-based activities and interviews with two of

the four teachers. Each teacher was observed in at least three one hour lessons. Interviews were conducted with two of the teachers following the field observations. The interview participants were selected based on the analysis of the observation field notes. Semi-structured interviews were used.

### ***Data Analysis Procedures***

The interviews were first transcribed and coded and the participants asked to verify the transcripts. Priori coding was used for the field notes from the observations and constant comparative analysis used for the interviews. The interviews were also independently coded by a second researcher to ensure reliability. Analytical memo was also employed during the data analysis. The final step in the data analysis process involved identifying the key concepts that reflected the meanings and conclusions drawn from the data.

## **Results**

### **The Value and Contribution of the e-Learning Training on Teachers Classroom Practices**

#### ***Participation and rating of the training***

The results of the assessment of the e-Learning training revealed that most of the teachers in the sample attended a little more than half of the training provided in phase one which covered basic ICT use. The results also revealed that the level of participation of these teachers in the technology integration training offered in phase two was significantly less; only 38% of the teachers participated in the integration training. The teachers were also asked to rate the usefulness of the training they received. The findings revealed that 72% of the teachers rated the training as helpful and that 80% felt that their classroom practices were enhanced as a result.

#### ***Technology-based activities used in teaching.***

The teachers were asked to indicate the number of technology-based activities that they used in their lessons. The results revealed that the majority of the teachers (78 %) were using 2-3 technology based activities in their teaching while a few used more than three or less than two subsequent to the training.

The types of technology-based activities that were being used by the teachers were also examined to get a more detailed description. This was done using an inventory of the different technology-based teaching activities; the uses were categorized in the analysis by the researcher as teacher-centred or student-centred based on descriptions provided in the literature. The teachers were asked to select the activities that they used in their lessons.

Table 3 *Types of Technology-based Activities Used by the Teachers*

Teacher-centred Activities	% of teachers utilizing	Student-centred Activities	% of teachers utilizing
Power Point to present content	79	Group sites	06
Present content via video clips	57	Chat sessions	06
Search for information online	72	Blog posts	13
Access teaching resources	40	Online quizzes	46
E-mail assignments	40	<i>Other</i>	<i>21</i>
Teach students how to use ICT	47		

The findings revealed that most of the uses of technology by the teachers were low end as described by Ertmer and Ottenbreit-Leftwich (2010). The other strategies which are more student-centred were being used by less than half of the teachers (see table 3 above). An open-ended item was also included in exploring this issue that asked teachers to describe any other creative technology based activities that they used that was not included in the list of options. The results revealed that 21% of the teachers had used strategies other than those included in the instrument. The activities described by the few teachers who provided other ways in which they used technology included the use of Skype and Podcast to interact with students, allowing students to record their fieldtrips and present the video to the class, creating puzzles and games that students played and allowing students to access simulation exercises.

### ***Factors affecting the use of technology***

The results of the analysis of variance and correlation confirmed the postulations of other researchers that teachers' confidence, competence, and the subjects taught affect their perceptions and use of ICT in their teaching. The results of the Pearson correlation revealed a strong positive correlation between teachers' level of comfort with technology and their utilization of the technology ( $r = 0.80$ ,  $p < 0.05$ ). The reliability coefficient was calculated ( $r^2 = 0.64$ ) which revealed that the teachers' perception of their level of comfort with technology accounted for 64% of the level of utilization which supports postulations made by Ainley, Eveleigh, Freeman and Omalley (2010) and Peralta and Costa (2007). The findings from the ANOVA ( $\eta^2 = 0.16$ ) with the level of significance being 0.14 or greater as recommended by Bastik and Matalon, (2007) also revealed that the subjects taught by the teachers had a significant impact on the teachers' perceptions of the usefulness of the training they received as proposed by Desimone, Porter, Garet, Yoon and Birman (2001) and Lawless & Pellegrino (2007). Thus, teachers who felt that content covered in the training was relevant to the subject they teach gave the training higher ratings than those who did not.

While findings generated from the inferential statistics helped to explain the teachers' perceptions of the training and the level of utilization of technology, it provided little or no explanation of the teachers' understanding of the role of technology in teaching based on the knowledge gained in the professional development and why they chose to use the technologies in the ways that they did, nor other factors identified in the literature such as teachers' beliefs about teaching. Hence, a more in depth investigation was still required.

### **How and why do teachers use technology in the ways that they do?**

#### ***Field Notes – Observation***

The two main themes that emerged from the priori codes assigned to the observation field notes reflected patterns of teacher and student behaviours: ICT-teacher-centred activities (students are passive observers of the technology in use) and ICT-student-centred activities (students are active participants using the technology). The descriptive codes assigned identified the pattern of behaviour of students as either active participants using the technology or students are passive observers of the technology in use. The teachers' activities were coded as monitoring, coaching, modelling and instruction.

Of the teachers observed teaching with technology only one of the teachers –named Miss KB – engaged predominantly in student-centred activities in the lessons. The students were

active participants using technology and the students displayed on-task, active learning behaviours the majority of the time. She allowed the students to use the computers to create concept maps to represent their ideas, use the internet to search for information, e-mail their work to each other, use Microsoft Word Review tool to assess each other's work and allowed the students to create Power Point presentations to share their work with the class. The teacher also engaged frequently in modelling ICT tasks, monitoring students' activities while they used the computers as well as coaching and content instruction. Miss KB was exposed to more professional development training in the use of ICT than the other teachers which may explain her use of the technology in student-centred ways. Watson (2001) states that few teachers who use computers in their classrooms can relate the use of technology to their pedagogic strategy and so those teachers who are able to do so is because it has a particular resonance with their pedagogic philosophy. Becker and Reil (2000) also state that teachers who are more engaged in professional development activities are likely to have a philosophy of teaching consistent with constructivist philosophy and make more student centred uses of ICT.

Another teacher – Miss JS – also showed some evidence of the use of technology in student-centred ways. In two instances, students were engaged in active use of the technologies. Students were required to type responses to comprehension questions in Microsoft Word and to use I-Pads to video record role-plays in another lesson. The analysis of the lessons observed for the other teachers – Miss JS, Miss LC and Miss FC – revealed that the activities involving the use of technology in their lessons were primarily teacher-centred activities. The students were passive observers of technology in use in all of the lessons. Typical activities involved students watching digital stories or videos followed by the completion of comprehension questions orally or in writing. In other lessons, the students read content displayed on slides from Power Point presentations and then the teacher would discuss the content.

### *Interviews*

In analysing the responses of the two interviewees, Miss JS and Miss KB, it was evident that their beliefs about pedagogy were similar; however their beliefs and understanding of the role of technology in pedagogy were different. In comparing the teachers' pedagogic beliefs it seemed that both teachers believe that teaching and learning should be student-centred. Similar explanations of student-centred pedagogy were provided and included the use of concepts such as "discovery learning, and teacher as facilitator and guide." However their reasons for using technology in their lessons and the role they think technology played in their lessons were different. Miss KB used technology because she felt that her students needed to know how to use technology for academic purposes and Miss JS simply wanted to try something new. These differences in their beliefs about the role technology plays in teaching were reflected in how they planned and used technology in their lessons. Miss KB believed that technology is important in developing certain skills in academic writing and she made use of the technology in tandem with specific objectives that she wanted to use technology to facilitate. Miss JS on the other hand, believes that the use of technology in teaching is a change to a new and better pedagogical approach and did not plan for the use of technology with any particular focus or objective. This would suggest that her understanding of the role of technology is one that equates technology use with automatic lesson enhancement. It is also evident that there is some amount of incommensurability in the views she posited by Miss JS and her classroom practices, she stated that she believes that lessons should allow for student centred discovery learning approaches

however she used technology primarily in teacher-centred ways, she asked the students to read the comprehension projected on the slides and type the responses to the comprehension questions on the computer.

Both teachers felt that technology use in teaching is good, but for different reasons. Miss KB felt that the use of technology in her lessons made concepts easier to grasp and helped in developing certain skills in writing while Miss JS felt that students' interest was heightened. When asked if they felt that technology use can be teacher-centred both agreed. Miss KB stated that "Some persons just can't let go of the traditional way where you are the centre of attention." Miss JS on the other hand confessed that in reflecting on the issue she has been guilty of this "I have had experience ... I was merely using technology for presentation and that made the lesson too teacher-centred." However she expressed concerns about her competence in using technology for teaching, this was confirmed by the perception of the experience in the training. Both teachers had participated in the e-Learning familiarization and utilization training and felt that "one shot" training in the use of the equipment was helpful but not adequate to enable effective use of the technology. Miss JS lamented "nobody taught us how to use it in a lesson, one off training is not enough."

## **Discussion**

The results of the research confirm the findings of Ertmer and Ottenbreit-Leftwich (2010) and Russell et al. (2003) that technology is increasingly being utilized in the classroom. However, the challenge based on the findings of this research is that the activities which would allow for more student centred teaching and engagement – such as the use of group sites and chat sessions, blogs, and online quizzes – are underutilized by most of the teachers. The absence of these activities and the frequently occurring use of Power Point and video clips to present information suggest that teachers are becoming adept at what Ertmer and Ottenbreit-Leftwich (2010) describe as low end use of technology. The low end use of ICT was further confirmed by the analysis of the data from the observations which revealed that most of the activities being used were teacher-centred. This gives credence to the point that, although teachers are becoming more proficient in their use of ICT, there is a high risk that teachers will integrate technology into their pre-existing teacher-centred pedagogy and use it to perpetuate same.

The findings of the observations revealed that teachers' beliefs about teaching in general and their beliefs about the role of ICT in the classroom and their practice in the classroom are not necessarily aligned as in the case of Miss JS. The findings also revealed very little evidence of the use of technology to facilitate the students' active construction of meaning by most of the teachers. It is also suggested from the results that many teachers do not make the technology their own by developing their own applications in response to situational demands which would be descriptive of constructivist, student-centred application of the knowledge of the professional development in their classroom (Duffy & Jonassen, 1992). The fact that many teachers did not provide any other activities and that generic uses were observed suggests a limited understanding of the use of technology based on the knowledge gleaned from the professional development activity. Many teachers seem to have fallen victims to the teacher-centred application of technology, which could have a lot to do with the "one shot" professional development training which does not cater for deep learning required to transform existing practices and pedagogy.

## Conclusion

It is too often the rhetoric that that technology holds the potential to transform teachers' classroom practices. It is not the technology that holds the potential to enhance teachers' classroom practices; rather, it is an understanding of how to design constructivist, student-centred activities. Considering that in most cases the use of technology is failing to facilitate new and better approaches to teaching based on the results presented in this paper which corroborate claims made by other researchers, it would suggest that teacher professional development in the use of ICT is still searching for a model that fits. The urgent need for a redesign of ICT teacher professional development interventions cannot be ignored. The continued focus on mastery of the technology and other ICT related skills clearly does not hold the answer to effective teacher professional development in the use of ICT. The continued use of one shot generic, standardized teacher professional development models to be applied across subject areas also does not seem ideal; rather there needs to be a central focus on teachers' existing beliefs and their understanding of ICT based pedagogy in the teaching of teachers specific subject matter content. Transformation begins as an internal process; therefore a shift from a technologically driven design to a more pedagogical design of ICT teacher professional development is urgently needed.

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