

Volume 3

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The MERN Journal is produced by the Manitoba Educational Research Network. Its purpose is to disseminate research by educational researchers in Manitoba and thereby improve the effectiveness of the public education system in the province. It is distributed free of charge through hard copy and the MERN Website (www.mern.ca).

The primary source of content are the MERN Research Fora which are held periodically throughout the year and provide researchers the opportunity to share their findings with all educational stakeholders. *The MERN Journal* publishes submissions from presentations at these fora. From time to time, MERN may also publish research monographs.

Educators who present their research at the MERN Fora will normally be asked to submit their work for publication in the journal, with volumes based on the themes of the fora. The editorial team prefers that manuscripts be submitted electronically, typed and double-spaced. Author(s) name, position, and affiliation should be included on the first page of the manuscript. Submissions should conform to the APA Stylesheet and include an abstract of no more than 120 words. Receipt of submissions will be acknowledged via e-mail within a week. Further, in the event that an article is not accepted for publication, the author will be informed within three weeks of receipt.

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Thank you.

IN THIS VOLUME

This Volume contains articles based on presentations at MERN forums 11, 13, 14, and 15. We believe that the discussions presented by these researchers contain important information for educators in various positions throughout the public education system.

For the first time, we have included two articles submitted in French. Due to increasing costs, we were unable to include the English translations as originally intended. We have made these accessible on the MERN website under "Publications": <http://www.mern.ca/journal.asp> We encourage readers to visit the site, access the English version if necessary, and take the time to explore the site.

Brian Lewthwaite begins the Volume with an exploration of the transformation of a northern Canadian Aboriginal school, led by a local Aboriginal principal.

Karen Magro studied the various initiatives designed to improve conditions for immigrants and refugees. After discussing the difficulties faced by newcomers, which prevent them from participating fully in our society, she highlights the argument put forward by interviewees that stronger links between academic programming and the workplace would reduce the barriers they still face.

John Hansen interviewed several Cree elders to determine whether they could assist schools and homes in establishing effective conflict resolution approaches as well as promoting peace and justice.

Brenda Firman discusses the results of a successful effort to transform non-readers and poor readers into students who viewed themselves as capable readers.

Luella Jonk studied Aboriginal mothers' responses to a survey inquiring into methods that they used to facilitate language development. The results provide important insights for both psychologists and teachers.

The research carried out by Brian Lewthwaite and Barbara McMillan provide important insight into what Inuit students in Middle Years believe are the characteristics of an effective teacher who promotes learning within a positive learning environment.

Glenn Cockerline and Michael Nantais report their findings on a survey of pre-service teachers designed to determine their facility with using digital technology, having used computers for much of their public school experience.

Finally, we wrap up this issue with two articles in French. The first, by Jules Rocque, reports on the results of an experiment with students in his university classes in which he used a blend of online and face-to face instruction.

The final article by H el ene Archambault presents the results of her study of the impact of information and communication technology in classrooms in Quebec's First Nations schools.

Enjoy!

T. MacNeill, Managing editor

NOTES

Examining the Influence of an Aboriginal Principal on Transformative School Development: A Case Study

- Brian Lewthwaite, University of Manitoba

Abstract

This paper explores the history and processes associated with the transformation of a northern Canadian Aboriginal school into a culture-based community school for its Metis, Inuvialuit and Gwichin citizens. In particular, the role of the principal, a local Aboriginal, as a leader in initiating and facilitating the transformative change is examined. Most significantly, the case described in this paper provides encouragement and insight for other schools desiring to move towards culture-based schools.

Context of the Study

Aklavik is a predominantly Aboriginal northern community in the Northwest Territories of Canada, one of Canada's three northern territories. The hamlet has a significant and culturally unique heritage in the development of the western arctic. It was established as a trading post for the Hudson's Bay Company in 1912 to serve the Metis, Inuvialuit and Gwichin Aboriginal populations that live in the biological and mineral resource-rich Mackenzie Delta region. Aklavik was the home of two of the arctic's three residential schools from the early 1920s until the late-1950s, Immaculate Conception Roman Catholic and All Saints Anglican. Typical of many Canadian residential schools, both schools have been more recently acknowledged as institutions responsible for a variety of emotional, physical and spiritual atrocities committed against many of their western arctic Aboriginal residents over a four-decade period.

A government run school was established in the late 1950s soon after the closure of these residential schools. Today, Aklavik is a community of 670 residents, most of whom are Metis, Inuvialuit and Gwichin. The school population of 153 is 97% Aboriginal. There are ten full-time teachers. Since its inception, the school has typically had a preponderance of southern, non-Aboriginal teachers and principals. This preponderance has [likely unintentionally] marginalized community

participation and, thus, cultural representation in the school. Although the school continues to be state-administered under the auspices of the Government of the Northwest Territories, the school over recent years has moved to become a community-based school reflecting the cultural context and community aspirations for education. The research outlined in this paper explores the impetus for the changes in the school towards greater community inclusion, especially in regards to and the processes influencing this change in Aklavik. In particular, it examines the role of the local Aboriginal principal in initiating and facilitating this change.

Methodology

The methodology used in this research inquiry is the case study. Using multiple sources of qualitative and quantitative data the study endeavors to understand and explain a phenomenon, the processes influencing the establishment of culture-based education program in an Aboriginal community. The study strives towards a holistic understanding of cultural systems of action within a social system, a school (Sjoberg, Williams, Vaughan, & Sjoberg, 1991). The unit of analysis in this case study is the dominant players in the school: the superintendent, principal, teachers, students, community members and Local Education Authority. Drawing upon multiple sources of information, this case study includes a multi-perspective analysis using themes from the relevant players and the interaction among them. Overall, the researcher seeks to make sense of the respondents' personal stories pertaining to school development and the ways in which these stories intersect (Glesne & Peshkin, 1992). The author sought to understand behavior from the respondents' own frame of reference, accepting that there were multiple ways of interpreting experiences (Bogdan & Biklen, 1992) but expecting that within these experiences common themes would be identified.

Results and Discussion

During a visit to the community and school after two decades of having been a teacher in the school, the author became acutely aware of how this school had physically changed in terms of the cultural artifacts on display (for example, elders photos, biographies of prominent locals, traditional motifs, cultural values statements, local historical displays). The school's interior physically reflected the culture and history of the community. As well, informal conversations with community members indicated that positive change had occurred in school management and classroom practice in recent years. Furthermore, the community was attentive to the recent Canadian Principal Award bestowed on the principal, Velma Illasiak. These events prompted the author to ascertain the nature of the changes at the school and the impetus for these changes through document analysis (School Mission statements, external reviews) and interviews with current and past teachers, community members, recent student graduates and members of the Local Education Authority. These themes and processes will be explored in the remainder of this paper with an emphasis on extended comments from the principal and school and community members.

Understanding the Impetus for Change

Velma's Account:

"After years of being a social worker [in Aklavik] I began to realize parents were unlikely to change, and it was hard to teach parents new tricks; they were set in their ways. They really struggle with change, and they weren't equipped to make change. So, I decided to change my focus and energy from the parents to their children. Our youth have energy; they want to learn. They are receptive to change. I have always believed in education, and that it provided a way to bring about change in the community. So I changed my career and came to the school as a school counselor. After being here [in the school as the counselor] for six months, I began to realize there had to be a change [in the way students were treated and the way the school operated]. The school was not a community school. It was not our school. It didn't feel that it was ours. We had no

ownership of the school. It didn't belong to Aklavik. It could have been any school down south. If I was a guest in this school, does the school say anything about the community? No. Would someone know it was a school in an Aboriginal community; not just in appearance but how it operated? No. The social environment did not depict who we were, and students were switching off who they were when they come in the school. They were being labeled by teachers as bad kids, but their parents and the elders knew these were not bad kids; many of them were wise kids, respected kids. The school was a whole different environment. There was a lot of disgruntlement in the community, but no one was doing anything to address it. They saw there wasn't much success and that the school had little regard for the cultural values and knowledge of the community. The school needed to be reflective of the community. I asked myself who could take on the leadership of the school. I had my Aboriginal role models [here in the school] but they seemed unwilling to pick up this challenge. I don't think they were aware there was a need for change, and more importantly that the school could change. They needed to be encouraged and empowered and ultimately I took it upon myself to take further training and returned as a teacher."

An Aboriginal Colleague's Account:

"She [Velma] made a decision to work more closely with the youth but was pretty disillusioned by the way the school operated. She has a quiet determination and made it clear she wanted to see this change. I admired her for wanting to see change occur and admired her even more for realizing that no one but us was going to make that change happen."

Two major themes pertaining to the need for change are evident in these accounts from Velma's and her colleague's story. First, Velma realized that education becomes a means by which social change at the community level might occur. Mediating socio-economic and home difficulties comes through recognizing schooling as a priority; a realization that motivated Velma to change her role from social worker to teacher. Second, her motivation or the

impetus for change was her realization that the situation, as it was, was inappropriate. There had to be change and someone had to initiate this change. She was not willing to accept the status quo and recognition that change in the status quo had to occur as a result of her action. Velma's response gives evidence of 'a revolution in mindset' that provided the impetus for educational change; a shift away from waiting for things to be done to them, to doing things for themselves; a shift away from an emphasis on reactive politics to and an emphasis on being more proactive; a shift from negative motivation to positive motivation. These shifts in thinking are referred to by Friere (1971) as 'conscientization' or 'consciousness-raising' illustrating a reawakening of Aboriginal imagination that has too often been stifled and diminished by colonization processes. The issue here is the realized need by Aboriginal people to have increased control over one's own life and cultural well-being and to make choices and decisions that reflect their cultural, political, economic and social preferences.

Processes for Initiating and Implementing Change

Velma's Account

"That's where I started. I needed the community to step up and help me develop that environment- so that the kids whether they are in the community, on the land or in the school- carry the same values and beliefs of who they are. That's where we started. We brought elders of the community from each of the cultural groups together to identify the distinct and subtle differences and similarities among the three cultures. We spent time talking about these and identifying the key principles we thought should be the foundation of the school based on the values of the cultures within the community. In the first year of my principalship, we wanted to work towards establishing the foundations of the school based on these cultural values. This was going to become a school based on the cultural foundations of the community. These values and principles had to be the foundation of the school and their lives. At the beginning of the school year the elder group met with the teachers, and we

reaffirmed these values. The elders see the value and importance of education but do not want to forfeit their culture. They want to see those two worlds fit and work together and not forfeit one over the other. The elders had no apprehension of being involved in the process. They want to see the future be better. They saw that there was rift in the community between the school and the community. Maybe they had been involved somewhat in the past but never before had they been asked to work with the principal and school strongly to bring about the changes that were necessary. They had been involved with classroom visitations but never to a level where they were going to become a part of the solution. They welcomed that opportunity to be involved. They provide me with direction. We had to be able to see what the future would look like. By having that, I knew I had all the support needed behind me. This was really a school-based initiative. I recognized that this was a community action and it was the responsibility of the community to meet that challenge. I looked for support from BDEC (the regional administrative council) maybe even leadership support to move in this direction, but basically we were on our own. Direction does come from BDEC; it is evolving. It is coming but how do you as an administrator achieve that; it really is up to you."

A Community Member's Story

"I had been involved with the school for many years. When your kids are at school you want to be involved. I enjoyed it but it was a lot of work. When Velma took over, it changed quite a bit. I had been asked before for my opinions before about things but now [with her] I was being asked to make decisions. It was mainly about how the school would operate and how people should behave, not just the students. She wanted us to be more involved and said she needed us to be involved. The DEA is in charge, but now I was being asked to give them advice about how the school should operate."

Recognizing the need for change is only the start of the change process in schools. Identifying the goal for change and the mechanism for achieving change are pivotal

steps in any school development process (Cuban, 1988). Velma's comments give evidence of both of these imperatives. Although not detailed in this paper, Velma described the collaborative and negotiation process she facilitated with representative cultural group elders in establishing the cultural values and priorities of the school that would inform and underpin the operation of the school. These include sharing, self-responsibility, love and regard for your fellow man, caring and humility, friendliness and kindness, respect and honesty and humility. In response to these priorities, a variety of actions in the school show testament of this value being made manifest in the school's operation (for example, seniors using their strengths in school service with sports team management, junior classroom responsibilities, and school operation such as janitorial services). Second, she describes the structures implemented to support the maintenance of Aboriginal culture and identity and, by so doing, fostering the recommitment of local parents. These are identified above and elaborated below.

Velma's Account

"It has been gradual steps. It has been an evolutionary process. At the beginning we established seven goals that were central to the elders and the functioning of the school. The initial goals had to be fleshed out within the school. They were not just to be words. They had to be made real in the way the school operated and how each class worked. They became the foundation for how we worked. They also provided the foundation for evaluation on an annual basis. The local community is involved in variety of ways but, currently mainly at a governance and advisory level. The DEA needs to know their role. The DEA never knew what their role was. They never saw they were in a partnership. There was little communication. The principal had the authority. He was here to do a service to the community with no guidance as how to do it. At the table this made for a rift and conflict. If the school was going to make any growth, the DEA had to be on board and be actively involved. They need to be empowered and to realize they had the potential to lead for change. They had to

change their mind sets. They had to accept their role. They had to see their role. They had to rise to meet the challenge."

Of critical importance was the need to establish a shared vision among her governance team and teachers, reflecting common concerns and interests of community members. Of particular importance to Velma has been the renewed commitment of community parents to reinvest in education and schooling despite their own stories of hurt and humiliation from their own schooling encounters, especially as a result of their residential school experience. Velma mentioned this has not been without difficulty. Many parents and elders encouraged to participate in discussion meetings and governance held feelings of hurt and humiliation from their own residential schooling encounters in Aklavik and needed support in overcoming these to be able to support the school in moving towards an orientation consistent with the community's aspirations.

It is likely that the means by which Velma has worked and continues to work towards a culture-based school are characteristic of good educational leaders. As suggested by Cuban (1988) a good leader is able to identify or develop and articulate achievable goals; motivate a leadership team to work towards a common goal; change and enhance existing structures to foster the achievement of goals; invest in human and physical resources; and monitor through evaluation the success of the interventions. These characteristics are quite evident within Velma's principalship approach. What makes her situation of importance is that she is Aboriginal and her school is Aboriginal. She is working with her community to develop students who reflect the mandate of public education in the NWT after decades of the school operating relatively removed from the aspirations of the community.

Current Developments

Although the school has made significant progress in becoming a culture-based school over the past few years, effort is still required to achieve what Velma envisions for the school, especially in terms of curriculum delivery and pedagogy.

Velma's Account

"We're just touching the surface of the cultural knowledge and teaching practices that are most appropriate for our learners. That knowledge is quickly being eroded, and we can contribute to ensuring that knowledge is maintained and built on. It's happening. The values are well along the way in being incorporated [in how the school operates], but with the knowledge we're just touching the surface. We have on-the-land programs, but there must be a deeper inclusion of that knowledge into our programs. I think we need to be more aware of that knowledge base and how it can be incorporated into curriculum. It takes time, and it's difficult to make the connections between what the NWT curricula are asking and how that can be developed in accordance with the cultural knowledge and beliefs of the community. On a daily basis there has to be inclusion and interjection of that knowledge in a meaningful way. It takes a real commitment. The delivery of programs has to reflect that cultural base. It just adds richness to their lives and makes them potentially so much more successful."

The aspiration here is that the teaching and learning settings and practices are able to effectively connect with the life experiences and cultural backgrounds of the community. Although a variety of developments give concrete evidence of the incorporation of what are perceived by staff in Aklavik to be culturally preferred pedagogy (for example, focus on local contexts and oral history; focus on first-hand experiences for students, focus on creating quiet and respectful learning environments where students are self-reliant), there is concern the educational experiences provided for children do not fully reflect, validate and promote the culture and language of the local community, especially in areas of curriculum. In response to this, Velma has encouraged the author's involvement, under the auspices of the University of Manitoba's Centre for Research, Youth, Science Teaching and Learning (CRYSTAL) to work with the school in addressing this intention. CRYSTAL is supporting the enhancement and enrichment of the language and culture of students by promoting the integration of local cultural

perspective with the NWT curriculum, in particular in science. It advocates that in every subject, including science, students should learn about history, knowledge, and traditions and practice values and beliefs in order to strengthen their education and enhance personal identity (Lewthwaite & McMillan, 2007). This support is a response to an identified need to provide a formalized curriculum framework that is permeated with "two-way" learning experiences that would support this school community and others who are interested in the Northwest Territories and Nunavut in providing educational experiences that are permeated with Aboriginal language, culture, traditions, and beliefs and designed to preserve and reinforce the Aboriginal identity of children, teachers, administrators, and community members.

Conclusion

The intent of this paper has been to describe the impetus for change and the processes influencing change for a northern Canadian Aboriginal school. The school's change has been motivated by a principal's decision to ensure the provision of a secure, nurturing environment that reflects the culture of the community and promotes the participation of educational staff, students, families and the community in making decisions about learning. Most significantly, the case described in this paper provides encouragement and insight for other schools desiring to move towards culture-based schools, a requirement for schools in the Northwest Territories. Velma's comments capture her caution and concern for schools in other Aboriginal communities faced with the challenges she faced at the start of her tenure as principal.

"I don't know if all schools can achieve this. There has to be people, whether they are Aboriginal or not, motivated to want to make these changes. The principal and staff need to understand the intent and know how to make this happen. They have to realize they need to change. They have to believe in the need for change. They can't be fearful of change. They can't be fearful of allowing the change to occur. They have to step-up. There is no other way. Or, things will just remain the same."

Clearly, central to the vision of this community school is a culture-based education program whose content, skills, outcomes and objectives are appropriate to the cultural needs of students in Aklavik, not just for today but with a focus on broad, life-long learning outcomes. This vision is only becoming a reality through the response of a teacher from the community to the perceived inadequacies of a situation perpetuated over many years. These comments are verified by her current Deputy-Principal

“She has a quiet determination to move towards her vision, a community’s vision. There is a resolve to see this realized – the school included and making decisions about education in Aklavik. It doesn’t happen overnight, but progressively we work towards that end. Parents call the school asking about their children’s progress. Her students know exactly what she wants for them, not just for their life today but for what she wants for them tomorrow and what the community wants. It’s not just for them today. Central to their success is ‘learning’ in the broadest sense. It’s for Aklavik’s future.”

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Negotiating new cultural and social terrain: Working toward transformative learning approaches in immigration research

- Dr. Karen Magro, University of Winnipeg

Abstract

Using transformative learning theory as a foundation to understand the challenges that immigrants and refugees face, this study also examines initiatives undertaken to improve conditions for newcomers. The sixty two participants in this qualitative study included adult immigrants and refugees, adult educators, and settlement service providers. Financial stress, a loss of professional standing, and difficulty establishing social and employment networks prevent some newcomers from participating fully in society. Building intercultural competence, using transformative approaches to teaching and learning, and strengthening the links between academic programming and the workplace are

suggested by the participants in this study as ways to reduce the barriers that still exist.

Introduction

Unrestricted capitalism, civil war, human rights violations, environmental degradation, and a struggle for control of natural resources have also led millions to seek a safe and more sustainable home elsewhere. Increasingly, Canada has become the destination for a large number of immigrants and refugees who have left their homeland voluntarily or under duress. Since the 1980s, Canada has adopted a policy of increasing immigration, and a larger number

of immigrants from diverse cultures have arrived over the past twenty years. As a result of humanitarian programs, approximately 15% of all newcomers each year are admitted through refugee programs. The task of rebuilding fragmented lives requires creativity and courage.

Purpose of the Study

This qualitative study attempts to detail the complex challenges faced by adult refugees and immigrants to Winnipeg, Manitoba. A number of these individuals were interviewed. Settlement service providers and adult educators who work with immigrant and refugee adults were also interviewed for this study. Initiatives undertaken by adult refugees and immigrants as well as service providers and teachers to improve the process of acculturation were also examined.

While Canada is perceived by many newcomers to be a safe haven and a land of opportunity, the situation is far from ideal (Li, 2003; Simich, 2000). New immigrants with professional degrees often have a difficult time in having their credentials recognized. The bureaucracy involved in resettlement and the struggle of navigating unfamiliar legal, cultural, language, and educational systems create stress for adults and their families as they attempt to re-establish their lives. Manitoba continues to be an important source province for both refugees and immigrants, and in recent years, there is competition between provinces to attract newcomers. A recent government document states that "Manitoba is committed to providing responsive settlement services that assist immigrants at each stage of the immigration process to ensure that they have the information required to participate fully in Manitoba's labor force and community life." (Manitoba Immigration Facts Book, 2008, p. 2) The educational system is of key importance in opening opportunities for newcomers to realize their potential; but in reality, settlement can be a long and often fragile process, unique to each person and family.

This paper will first present an overview of transformative learning theory as it relates to the process of acculturation. The participants and methodology will be described. Excerpts from the participants in the study will provide a foundation for understanding the challenges that newcomers face and the possibilities for

transformative change at a personal and community level.

Conceptual Framework: Transformative Learning Theory

Over the past 20 years, transformative learning theory has deepened our understanding of learning processes in adulthood. Different strands of transformative learning theory have been applied to both individual and societal change. Literacy initiatives, civil rights, social justice, environmental movements, and counselling/mentoring programs all exemplify significant learning that involves dialogue, critical reflection, empowerment, and action (Cranton, 2006; Freire, 1997; King, 2006; Mezirow, 2000, O'Sullivan, 2002; Taylor 2006). Paulo Freire's pioneering work in critical literacy education highlighted the key role that adult educators often play in challenging learners to think more critically of the systems of power that work to marginalize disenfranchised groups (Magro, 2001; 2008). Freire's "problem posing" approach to literacy education challenged traditional education systems by grounding learning strategies and curricula in the interests, needs, and aspirations of adult learners. Popular theatre, dialogue, and reflective writing are some of the strategies that Freire used to engage adults in literacy learning. Bringing about personal and social change involves reflection and action, thereby "transforming [the world] by means of conscious, practical work" (Freire, 1997,p.35).

In essence, transformative learning involves a process whereby individuals reflectively transform existing beliefs, attitudes, and ultimately behaviors; a paradigm shift takes place in the way individuals see themselves and their world. For Stephen Brookfield (2000) "an act of learning can be called transformative only if it involves a fundamental questioning and reordering of how one thinks or acts" (p.139). Jack Mezirow's (1981) theory of perspective transformation was grounded in his work with adult literacy learners. His theory examines the psychological changes that adults may undergo as they adapt to new challenges in life. The loss of a job, a move, a death in the family, significant educational experiences, or a career change may cause adults to construct, interpret, and reappraise the meaning of their life

experiences. Mezirow (1990) writes that perspective transformation is “the emancipatory process of becoming critically aware of how and why the structure of psycho-cultural assumptions has come to constrain the way we see ourselves and our relationships, reconstituting the structure to permit a more inclusive and discriminating integration of new experience and acting upon these new understandings” (1990, p.14) He further writes that transformative learning involves “an enhanced level of awareness of the context of one’s beliefs and feelings, a critique of one’s assumptions, and an assessment of alternative perspectives “ (1990, p. 161).

Mezirow’s (1981, 2000) theory becomes particularly relevant in the context of understanding the way in which immigrants and refugees cope with the multiple challenges they may face: the loss of their home country and familiar customs, the need to learn a new language, the need to re-establish professional standing and identity, and the challenge of learning new skills to navigate unfamiliar cultural, legal, educational, and social terrain.

For adult learners with little formal education or interrupted education and limited literacy skills in their first language, English language competency in academic and interpersonal contexts can become an even greater challenge. Ellen Foster (1997) links the processes of transformative learning with studying an unfamiliar language like English. She explains that the necessary survival skills of English can be a psychologically destabilizing experience. Adult learners who previously felt confident, socially adept, and intelligent may begin to feel insecure when learning English. “At the technical stage, self-concept is particularly vulnerable as learners are simultaneously coping with the material to be learned (the language and its rules) and with the disparity between who they know themselves to be and how they represent themselves in the classroom” (Foster, 1997, p. 36). Learning new languages involves risk taking, and time is needed to synthesize, master, and apply the complexities of English language nuances and idioms. Foster states that the English teacher plays a critical role “not only as the provider of information but also the buffer between the learner and the language experience. The

teacher must guide the learner through the material while anticipating the obstacles, fears, and uncertainties.” (pp. 36-37)

In her book *Working toward transformative learning*, Patricia Cranton (2006) emphasizes that many factors can influence transformative learning: personality traits, learning styles, stress, the readiness to learn and engage in critically reflective dialogue, and an individual’s openness to new experience. She writes that individuals experience events in unique ways that may not necessarily lead to new ways of thinking and acting:

Life crises---a loved one dying, a marriage breaking up, the loss of a job, financial ruin---or positive changes such as a promotion, retirement, or the completion of a years-long project can challenge individuals to reconsider their values, expectations, original position, or self-concept.... traumatic crises may not lead to critical self-reflection if the person feels disempowered by the event, or it just may take some time for reflection to be possible.... Sometimes it is the building of events, one upon the other, rather than one specific event, that lead to a questioning of one’s perspectives. (Cranton, 2006, p. 63)

In educational contexts, learning strategies, methods of assessment, the facilitator’s personality and preferred style of teaching as well as the affective climate of the classroom and the course content are all factors impacting the dynamics of adult learning (Magro, 2002, 2008). Mezirow (2000) connects the ability to engage in critical dialogue and reflection to dimensions of emotional intelligence---maturity, empathy, optimism, intercultural competence, and skill in negotiating relationships. In the present study, transformative learning theory was used as a framework to interpret the following dimensions:

- * the challenges and significant learning experiences of adult refugees and immigrants
- * processes of acculturation and integration
- * the role and responsibilities of adult educators who work with newcomers, and their preferred teaching and learning

- strategies
- * the role of settlement workers and directors of various agencies that help refugees and immigrants adjust to life in Canada, and
 - * developing a framework for transformative education that would have relevance to individual and community change.

Participants and Methodology

Sixty-two individuals volunteered to participate in this study. Semi-structured interviews lasting for approximately two hours were conducted with seventeen refugees, eleven immigrants, sixteen teachers, and eighteen service providers. The source countries for the immigrants and refugees included countries such as China, Kenya, Sierra Leone, the Sudan, Liberia, Iran, and Afghanistan. The names of all participants have been changed to protect their identity. The data was collected over a two year period (2006-2008). Most of the refugees and newcomers lived in the inner city of Winnipeg and had lived in Canada for approximately seven years.

I made contact with the participants through teachers and administrators at various adult learning centres and through settlement agencies. I also made contact with interested participants through various community and university groups. I explained that the purpose of my study was to learn more about the challenges facing newcomers and immigrants; I also wanted to learn more about the specific ways that individuals and communities were trying to improve their lives and realize their personal and career goals. I emphasized that the participation was voluntary and that participants could decline to answer any of the questions. The questions for the adult immigrants and refugees centered around their pre-, trans-, and post-immigration experiences, the expectations they had of Canada, their adjustment to life in Winnipeg, employment and educational experiences, and the strategies they used to improve their lives. The interviews were transcribed and coded. Themes from the interviewed individuals emerged that related to the challenges faced by newcomers and their attempts to overcome them.

Following phenomenological research studies by Merriam and associates (2004),

Dominice (2000), and Van Manen (1997), the semi-structured interviews used in this study were designed to capture the “essence” of individual experience. Each interview lasted approximately 1 ½ hours. Van Manen (1997) explains that phenomenology “is the systematic attempt to uncover and describe the internal meaning structures of lived experiences.... the essence or nature of an experience has been adequately described in language if the description reawakens or shows us the lived quality and significance of the experience in a fuller or deeper manner.” (p.10) Dominice (2000) attests to the importance of qualitative research in adult education as a way to learn more about themes such as immigration, uprootedness, and identity. Through narrative analysis and life history research, individuals express their subjective realities and the social contexts that influence them (Dominice, 2000).

The teachers, educational administrators, and immigrant service providers who were interested in participating in my study contacted me by phone. The questions for the teachers were based on studies exploring teaching perspectives and philosophies undertaken by Pratt and his associates (1998; 2006). Questions for the teachers centered around their role and responsibilities, their approach to curriculum planning, the barriers that their students experienced, the mission of their institution, and their views on the process of learning. The teachers’ views on teaching and learning were then compared to the role of the educator and the process of learning outlined in theories of transformative learning. The administrators and settlement directors were asked questions relating to the purpose of their institution, their own role and vision for the future, their perceptions on the barriers of adult newcomers and immigrants, and specific strategies that could remove or reduce these barriers: What programs have educational institutions and settlement agencies designed to help newcomers integrate more effectively in Canadian society? and What still needs to be done to help newcomers feel a greater sense of belonging? The interviews were tape recorded and the data was transcribed. All names were changed to protect the identity of the participants.

Navigating Identity and Belonging: A Precarious Path

Hamilton and Moore (2004) note that the ability to adapt successfully to a new culture may depend on pre-, trans-, and post-migration factors such as: the age at resettlement, personality factors such as resilience and optimism, cultural perceptions of stress, gender and culture, educational level and knowledge of English, stress and trauma, and the external supports and networks available to individuals once they are resettled (Magro, 2008).

The adult immigrants and refugees who participated in this study had unique paths of resettlement. Resettlement for both adult immigrants and refugees was influenced by factors such as financial resources, personality characteristics, expectations of Canada, cultural values, English language proficiency, and access to educational and employment networks. In writing about the importance of citizenship education, Schugurensky (2006) asserts that while “status is about being a full member of a community, identity is about feeling like a member of a community” and “is rooted in factors such as a common history, language, religion, values, tradition, and culture, which seldom coincides with the artificial territory of a nation state” (p.68). He notes that newcomers should not be conceived of as “economic producers and consumers” but as informed and critically aware individuals. To this end, “an education for active citizenship [should aim] at nurturing community development initiatives that foster self-reliance, empowerment, grassroots democracy, and social transformation” (p. 72).

For some of the adult immigrants who came to Canada seeking better employment opportunities, there is the difficulty of establishing a career and a network of professional contacts that would help realize their goals. Gloria, a teacher from China who had immigrated to Canada seven years ago, describes her disillusionment:

I want to demonstrate my intelligence, persistence, and energy. I have never given up but I often asked myself if I chose the right career in being a teacher in Canada. I have studied and completed four degrees but I still cannot find work. I am a divided person. It is painful to be

teacher in Canada. I am still seen as a foreigner. When I walk down the halls in a school, the other teachers and students stare at me. To get a job, you have to beg. I feel tired to panhandling my skills and credentials. I bring my portfolio with me to each school when I substitute, hoping that the principal will sit down with me. For a well educated person like myself, there is the loss of dignity that I deal with . There is no appreciation of the fact that I can teach Chemistry, Environmental Studies, and Math. People see me only as an unusual foreigner with an accent. I feel that I have a lot to teach these kids in the inner city. So many of the kids from different cultures today have lost their cultural heritage ...I love Canada but I also love my Chinese cultural heritage and this is something I can share. There are thousands of Chinese Canadians in Manitoba but very few teachers from a Chinese backgrounds. As teachers, we are very lonely. The professional threshold is very high and there are few opportunities.

Gloria’s situation reflects that of many teachers who have immigrated to Canada from other countries. Khan (2007) notes that in spite of extensive education and re-training, immigrants still face systemic and institutional barriers. Immigrants are increasingly arriving from “non-traditional” source countries, Khan writes. She further observes that employers are looking for employees with “Canadian values, culture, , and rituals. While regulatory bodies, employers, and others may wish to close off options to immigrants, those armed with a knowledge of the dominant class’s rituals, habits, and practice are more likely to attain economic equality...[Skilled] immigrants are assessed against a grid that awards points on the basis of work experience, level of education, official language proficiency, age and adaptability..... the selection criteria will not necessarily translate into professional placements in their fields.” (p. 65) The need to help skilled immigrants realize their professional goals could be met more through mentoring and apprenticeship programs that give individuals a chance to demonstrate their skills in a work context where there are realistic opportunities to

find work.

Openness of communities of work can influence and shape the way that newcomers integrate into Canadian society. To what extent is the workplace welcoming and appreciative of the talent that many newcomers bring? Shan's (2009) study of highly educated immigrant women from China found that social exclusion, marginalization, and a lack of appreciating professional credentials and experiences prevented these women from accomplishing their career goals. The accessibility and receptivity of Canadian workplaces, notes Shan, often places limits and restrictions on immigrants. "Rarely did the women receive training or support at work to help them make the transition into their new workplace. The employers and co-workers expected them to be immediately productive" (Shan, 2009, p. 12). Workplaces endorse "territorialized practices" that did not encourage collaboration. The women in Shan's study felt that their situations "required proving [themselves] and excelling beyond the normal expectations for Canadian-born professionals. These women had worked as medical doctors, engineers, university lecturers, and teachers in China; in Canada they had to "occupationally reposition" themselves and found work as lab technicians, daycare assistants, and store clerks. "The structuring of work activities, the recognition of newcomers, and the interactive opportunities with other workers afford immigrants with different access to communities of work" (Shan, 2009, p. 4).

Learning as a Relational Process

For immigrants and refugees, social networking and the ability to enter different communities of practice in the workplace is a critical step in the process of acculturation. However, too often, newcomers are on the periphery; they do not play a key role in the established community of work, and they need opportunities or "social spaces" to become part of this community. The development of language and an understanding of organizational culture are needed. If newcomers are not given the opportunity to develop their language skills in socially relevant contexts, they are at risk for being further marginalized. Citing the research on situated cognition by Lave and Wenger (1998), Shan (2009) writes that "learning is a

relationship process where newcomers' personal practices are informed by and inform social practices....As newcomers begin to claim their membership and establish their own identities in new communities, they become potential forces of change" (Shan, 2009, p.5). The following excerpts reflect how some adults adjust their goals and strategies as they navigate unfamiliar social and cultural territory in Canada. James, an immigrant from Nigeria, recollected the difficult time he had in establishing himself:

When I first came to Canada from Nigeria and saw the obstacles in front of me, I thought 'Wow—this is not going to be surmountable, even with my education.' Where am I going to start? You go to an interview and people do not call you back. As I reached out to different communities through volunteering, I began to integrate and understand the culture. I persevered and asked questions. I had to stoop low to conquer. I realized that I had to learn a lot about different values and systems in Canada. I changed my thoughts. I first felt angry and a victim of injustice. I then realized that I was not the only one struggling to make it. I finally found a job as a refugee counselor and now I am completing my doctorate degree in theology. I met my wife who works as a chaplain, and we had a lot in common. It is wonderful to look back at these past six years and see how far I have come. I tell the refugees that I work with: 'Don't expect to hit the ground running.' Learning in and out of the classroom is essential.

Sharon has worked with adult learners from 25 years and reflected upon the importance of addressing the adult learner's need individually. She reflects upon the struggle of some of her students as they personally and professionally repositioned themselves in Winnipeg:

We have to look at each person's situation individually instead of dismissing them and saying 'their credentials do not measure up.' Many newcomers cannot find work in their professional areas. It is not so bad if you are a health care aid and you used to be a nurse. Many just work as custodial

cleaners and that is difficult. It is another matter altogether when you have skilled professionals from Bosnia and Poland who have two and three degrees and they cannot find work in their profession. Many are so accepting of whatever they get. They begin to set new goals. Some think: 'Yes, I was a nurse, but I'll start life in Canada with whatever I can get and move up from there.' Many are very appreciative of finding a safe place to live and raise their children that they are willing to put up with personal and career disappointments.

These excerpts describe the complex layer of barriers and challenges that can interfere with successful acculturation in Canada.

Strengthening a Fragile Foundation of Immigration

For adult refugees, the process of English language acquisition and the completion of secondary and post secondary education are made more complicated by the need to cope with poverty, unsafe neighborhoods, responsibilities to those left behind, and psychological trauma as a result of war, separation from family, and personal tragedy. Long hours of work in minimum wage jobs, balancing home and academic responsibilities, and paying back loans from the government create untenable situations for some newcomers. As one teacher noted: "When newcomers arrive in Winnipeg, the hardships are not over. They have to deal with a whole new set of stresses." Housing, for example, can impact the quality of life, health, social interaction, and community participation. The fragile and precarious foundation of immigration can easily break if the resources and scaffolds are not there to help newcomers. Yvette, a refugee in her thirties, escaped the violence in Liberia. She describes the stress of financial constraints:

As a mature student on low income, I rely on loans to pay for my books and tuition. I also apply for childcare subsidies. Some days you feel that you will not make it. I cannot work full time and take care of my children. I need more to sustain myself and my family. I cut down on many things for

myself and I knit and crochet to bring in extra money. However, most of the time, I am late with bills and sometimes the collection agency calls me. I have to think that my life will get better. It is also not easy to be a parent in a society so different from your homeland. You have to learn new ways of coping with your children when they disobey you.

Despite the hardships, Yvette has taken proactive steps to improve her life. She is completing a degree in Urban and Inner City Studies and hopes to be able to work as a counselor with newcomers. She is also active in the African community in Winnipeg, and has organized fund raising events that have encouraged community members to sell artwork, food, and crafts. Yvette described a community event that she organized last year at an inner city park known more for drug dealing. This attempt to take personal agency and "reclaim" a violent part of the inner city and transform it to be safer and more welcoming is one example of the positive initiative refugees and newcomers have made.

Martin, a refugee counselor for an immigration settlement agency in Winnipeg, further commented on the need to help the refugee family cope with the challenge of living in the inner city:

I see teens today who are alienated from their parents. They are living in two worlds. Poverty can drive young people from refugee backgrounds to a life of crime. One teen I tried to help was working at a gas station. He was lured by drug dealers to quit his job and start working as a drug dealer. The African Mafia and Mad Cowz gangs stem, in part, from family problems and a society that negates the source of problems that some refugees have----cultural misunderstandings, poverty, unsafe neighborhoods and discrimination. Worlds and communities collide and the result can be devastating.

Indeed, adult learning centres, and post secondary institutions in Manitoba have increasingly become aware of the specialized needs that newcomers have and are offering mentoring programs to give adolescents and

adults an opportunity to learn more about various career options and the qualifications needed to enter these programs (Magro, 2008; Simbandumwe, 2005) .

Resilience

Resiliency and optimism were personality characteristics that emerged in the interviews with adult refugees. Many of the adult newcomers took personal initiatives to improve their lives by embarking on a new career path, helping friends and family left behind, and networking with other refugees and newcomers to create stronger links with community and educational resources. Resilience is connected to dimensions of emotional intelligence such as motivation, courage, and empathy; it can be described as “the process of, capacity for, or outcome of successful adaptation despite challenging or threatening circumstances. Psychological resilience is concerned with behavioral adaptation, usually defined in terms of internal states of well being and effective functioning” (Anderson, 2004, p. 53). Resilience can be applied to individuals, families, and communities that provide resources and opportunities to build supportive networks. Anderson (2004) notes that personal qualities like courage and optimism that form resilience are not guarantees of future resilience. Without the opportunities to gain confidence, competence, and meaningful employment, resilience can be eroded. Despite the setbacks, the courage and openness to help others was expressed by both the immigrant and refugee participants. James describes the importance of personal qualities like perseverance:

I have a master's degree from Nigeria and I now work with refugee youth as an advisor, but my first job in Canada was sorting garbage.... There is hope but you have to have determination, vision, and a plan and each person has a variety of resources. You can't be mentally locked up in the past if you are to move forward. I don't use the word 'impossible' I use the word possible. My father was a leader in our village and he had a passion for learning. He encouraged me to fulfill my goal of coming to Canada. Today, I am an advocate for young people and challenge

them to persist. It is not only individuals we have to educate but communities at large—about working out problems peacefully.

Despite his own financial and personal hardship, David values the freedom he has in Canada and emphasizes his motivation to help the victims of war-ravaged Sierra Leone:

In the West, a diamond is a symbol of prestige and beauty; in my country (Sierra Leone) a diamond is a symbol of misery. When the war was at its peak in 1998 I was a teenager working in the diamond mines. I was captured by the rebels and had to work for them but it was a miracle that I escaped on the third night. I could have been recaptured and killed. I walked in the forest for many miles until I found safety. When I lived in Sierra Leone I saw horrible things. There was no respect for humanity. I saw the respect for humanity in Canada and this has motivated me to help my people back home. I am interested in making a documentary about the innocent amputees in Sierra Leone. They are victims of the war and their lives changed in a second. They all deserve to have help and have their dignity restored. I would like to help build a health facility for the disabled—similar to ones I have seen in Canada.

Isabelle, the director for an immigrant employment centre in Winnipeg, explained that services for newcomers must include a “transformative approach” that is dynamic and changing according to the needs of individuals and communities. She suggests that stronger links between educational institutions, settlement agencies, and professional work contexts could be forged:

If we can integrate different cultural groups in learning contexts, they can learn from each other in terms of respect, in terms of communication, in terms of support and leadership. Learning involves building relationships. In the classroom, there has to be an emphasis on structure and relationships. The framework of settlement and employment programs have to be ever

evolving. The reality is that jobs are demanding and require multiple skill sets in multiple areas. I continually reflect on my own work and see ways that I can improve. My career progression has been that of a teacher in Portugal to a garment worker in Canada. Personality, creativity and a desire to take risks play a pivotal role in successful settlement. I've worked as an immigration counselor, facilitator, program designer, coordinator, and now director. I designed the first literacy program for immigrant women who were left unemployed due to factory closures. I try to provide our clients with a simulated work environment. They are learning about accountability, conflict resolution, and interpersonal communication. If you are an engineer or aim to be an engineer, I try to find you work in an engineering context. The more distant you are from your profession, the more difficult it will be for you to find work. I try to help people make these connections with their skill and interest areas.

Specializing the curriculum based on the adult learner's personal and career interests and practical projects in "real-world settings" could enhance motivation, connection, and meaning for adult learners. This would challenge adult learning centres to build more collaborative networks with industry and business sectors; in addition, alternative programs and more flexible time tabling would be needed. Increased funding to develop and improve upon family literacy programs, parenting courses, access to daycare facilities, and apprenticeship based educational programs would enable more adults to realize their full potential.

Building Intercultural Competence: An essential skill for global citizenship

This study suggests that the concept of intercultural competence is a personal and social skill that is vital to understand as it applies to immigration and acculturation. However, intercultural competence should not be viewed as a one-way process of newcomers "fitting" into Canadian society. Rather than viewing newcomers from a deficit perspective as, for example, "a drain on the economy," immigration

must be reconceptualized from an "asset" framework where all Canadians develop the capacity to appreciate diversity. Taylor (1994) describes intercultural competence as "a transformative process whereby the [individual] develops an adaptive capacity, altering his or her perspective to effectively understand and accommodate the demands of the host culture; he or she is able to actively negotiate purpose and meaning." (p.392). Similarly, Bennett(2007) writes that a multicultural person is "one who has achieved an advanced level in the process of becoming intercultural and whose cognitive, affective, and behavioral characteristics...are open to growth beyond the psychological parameters of any one culture" (p.9). A multicultural approach to curriculum planning also encourages "the movement toward equity or equity pedagogy, curriculum reform, or a rethinking of the curriculum so that it represents multiple narratives and perspectives" and teaching "toward social justice, the commitment to combat prejudice and discrimination of all kinds." (p. 4).

The newcomers, teachers and service providers who participated in this study felt that the Canadian public, in general, could be more understanding of the plight and journey of newcomers. Discrimination and racism can be reduced through self-awareness and an emphasis on building a stronger educational base for multicultural education at an earlier age. One teacher said: "You cannot move forward unless you have skills and confidence. You see people disrespecting our newcomers wherever you go. You see the public disregard them or speak loudly or childishly to them. It is terribly frustrating for me to see our Canadian born citizens understand so little about other cultures. Canadians themselves need to be educated on ways to treat newcomers with greater respect." Marta, an experienced EAL teacher with over 20 years of experience, explains the need to create greater intercultural competence among all:

Individuals need opportunities to build skills, stability, and confidence. Adult newcomers need to find a sense of connection and meaning in life through work, friendships, and setting new goals. A major misconception that Canadians have about refugees and immigrants is that they

are here to take our jobs away. That is simply not true. Refugees have been forced to flee and the stress is not over when they arrive. As a teacher of adults, you have to have a love for people and an openness to understanding other cultures and different perspectives. Our recent immigrants and refugees have many skills; what some are lacking is confidence, knowledge of English, and a network of friends that can explain how the society here works. People need to become more empathetic. They should put themselves in the shoes of a refugee for one day. How long would it take you to learn Farsi if you were forced to live in Afghanistan? At one level, the government expects to drop people into a strange town or city, and then thinks that everything will fall into place. But that does not happen. We have limited settlement and educational services and there continue to be problems with poor housing, a lack of day care, discrimination, and access to employment. More can be done to help our newest citizens feel a sense of belonging.

Leanna, an EAL resource teacher for 15 years, cherishes the experiences of her students:

We have a lot to learn in terms of understanding different cultures. We need to be more understanding as a society. I have learned from the tremendous strengths of my students. I admire them. Over 22 years, I have heard so many stories of hardship that would break your heart. Our adult newcomers have tremendous tenacity. I have many students' stories in my memory----back to the Vietnamese boat people who came in the early 1980s. Now we have the Karen hill tribe people from Burma(Myanmar) and the Sudanese people who spent their youth in refugees camps. Some have had their children there. These people did not have a childhood. They had to become adults while they were still children....My recommendation is that we have more mentorship and host programs over longer periods of time. I believe that we can have

a win-win situation if we build upon the strength of each cultural group and community. Families need more pre-arrival contact and knowledge about Canada. In particular, more emphasis could be placed on helping parents understand the different value systems. The value system in families can be destroyed when the parental role as the authority figure is challenged and questioned. People often feel totally helpless with their children. Right now, good parenting is the key.

Some of the settlement directors suggested that our neighborhoods and schools need to be more diversified, and that too often newcomers "compare the best of their culture" with the worst aspects of the what they observe in Canada---- inner city violence, crumbling apartment buildings, and a lack of access to counselling and other vital services.

Teaching for Change

Teaching English and related content area courses from a transformative perspective is aimed at helping students "gain a crucial sense of agency" over themselves and their world (Mezirow, 2000,p. 20). Teaching from a transformative perspective is holistic and interdisciplinary. Texts become a catalyst for discussing contemporary social and psychological issues of interest to adult learners. Current research on the teaching of English as an additional language emphasizes the need to integrate linguistic competency with intercultural communication and contextual applications (Turner, 2008, Manitoba Education Citizenship and Youth). Role model, co-learner, advocate, mentor, cultural guide, and counselor are some of the roles that the teachers in this study identified with. The teachers in this study commented on the importance of the teacher's own ability to model empathy, compassion, and resourcefulness is also a key to establishing a positive learning climate. Lillian, an EAL consultant for 10 years, recognizes some of the positive changes in adult education programming:

I am happy with our school division's attempt to improve adult literacy programming by hiring more community support workers, interpreters, literacy

coaches, and refugee counselors. As teachers, we will continue to advocate for our students. We are looking at new initiatives. The new focus on knowing multiple literacies in the workplace is important for our English language learners. Our curriculum highlights document use, computers, oral communication, interpersonal skills, and problem solving. English language learners will now be on a more level playing field with other workers. The major difference between the Canadian born workers and newcomers is often the knowledge of English. Now when there is an emphasis on other skills being just as important, our newcomers should be able to have a greater opportunity to experience success. The emphasis placed on integrating different skill sets is more dynamic. EAL teachers are often the starting point for understanding Canadian culture. Immigration to our province will double in the next few years, and we need to think more creatively about the profession. You need to be able to learn from your students and their experience, and base your curriculum planning on this knowledge.....

Consistent with these ideas, adult education researchers Derise Tolliver and Elizabeth Tisdell (2006) write that the possibility for transformative learning is rooted in “creating an environment that invites multiple dimensions of learning that includes attention to the cognitive, the affective, the relational, the imaginal, and the symbolic dimensions of learning” (pp.40-41). In further expanding upon transformative learning theory in the adult education context, Tolliver and Tisdell stress the importance of:

- the authenticity of teachers and students
- an environment that fosters the exploration of multiple forms of knowledge production
- providing readings that reflect the diverse cultures of the members of the class and the larger community
- an exploration of individual and communal dimensions of culture and other dimensions of identity
- collaborative work that envisions and presents multiple dimensions of learning

and strategies for change

- a celebration of learning and a provision for closure to a course
- a recognition of the limitations of education and that transformation is an ongoing process that takes time. (p.42)

The teachers interviewed for this study often took an active role in designing new curricula that would enhance adult motivation and learning. The emphasis placed on the need for students to develop intercultural competence, can, in part, be accomplished by developing an educational framework with multi-cultural themes. For example, a cultural studies approach to teaching language arts and English as an additional language would enable students to link local and global issues. The teachers’ ideas in curriculum planning in English support Jarvis’s (1999) insight that “literary texts offer not only scope for examining and validating experience, but also for challenging the way experience is constructed and understood.” (p.182). Developing an inclusive classroom environment by drawing upon adult learners’ experiences and strengths, authentic learning activities, creating better links between educational institutions and the workplace, and the opportunity for adults to develop academic and interpersonal skills through dialogue, reading, and reflective writing were themes that emerged from the interviews with the teachers. Experiential learning strategies that included research projects, reading texts that had powerful themes relevant to adult learners’ lives, reflective and creative writing, and dialogue were highlighted.

Adult Learning as a Journey of Change and Continuity

Taylor (2006) notes that teaching for change challenges adult learners to assess their world views and value systems. Teachers need to be able to take risks and use a range of learning approaches that encourage personal empowerment and growth. The teachers emphasized that their role and responsibility in teaching newcomer immigrants and refugees has become more complex in recent years. Some felt that institutional and systemic barriers (e.g. financial funding for post-secondary education) needed to be reduced if their students were to become more fully engaged as

Canadian citizens. The teachers and settlement workers demonstrated many of the qualities of the “intercultural person”—empathy, an openness to and appreciation of diverse cultures, and a tolerance for ambiguity. They emphasized the importance of being sensitive to the psychological state of their students. Taylor (2006) observed that “transformative learning is much more than implementing a series of instructional strategies (small group work, experiential learning); it involves an acute awareness of student attitudes, personalities and preferences over time, and as signs of change and instability begin to emerge, educators can respond accordingly”(p.187) Activities encouraging self-expression and confidence-building through journal writing, artistic expression, informal essays on topical issues, and drama are some of the ways that the teachers helped their students develop academic and social skills. The texts that these teachers chose also represented multiple narratives and perspectives. Denise, an English and EAL teacher for 25 years, recognizes the importance of linking the curriculum to the lives of adult learners:

Our students do not just want textbook exercises and rote grammar. The students who missed out on school desperately want the Canadian experience of education and the opportunity to learn about Canadian culture. Our students want adult themed topics---relationships, social justice, parenting, and psychology. You have to be a cultural guide in many ways. Learning about geography, film, sociology, and psychology is important, and these are not topics that you would commonly explore in workplace ESL courses. Often vocational training can lead refugees and newcomers to dead end jobs, and this should not happen. I use journals, autobiographies films and speeches to help encourage motivation among my students. Many refugees need bridging programs but specific courses and programs should vary according to individual needs. EAL students need to feel included in general discussions...they do not want to feel singled out or labeled as different because they have an accent

or their English skills need further development.

Gillian, a teacher in her thirties, has worked with adult learners from diverse cultural backgrounds for eight years in the inner city of Winnipeg. Her approach to curriculum design taps into the creativity of her students:

The war is still going on in some of our students' lives so I try to establish a positive environment where they can develop a love for learning and creativity. I also want my students to share their languages and use them. I give my students opportunities to share their knowledge and this can be done through art, autobiography, and individual research projects. You have to remind them that they are an expert in some way and their expertise is valued. I ask my students to take poems and short stories and create an art form that expresses the message they take away. We do not use art enough in teaching English. I encourage my students to have more confidence in their written and oral expression. The greatest barriers I feel are psychological. I have students who are 20 and feel too old or have low self-esteem. I try to challenge their views and help them see possibilities in life. They are capable of being successful in Canadian society and it is tragic that so many have lost so much and have to start all over again. As a teacher you also influence the way your students see Canadian society.

It is also important to recognize that not all teachers and administrators share similar views or perspectives that are consistent with the themes echoed in transformative learning theory. Indeed, transformative learning theory is not well known among adult education practitioners, and opportunities to learn more about the theoretical and practical applications could be explored through professional development seminars and courses (Pratt and associates, 1998; Taylor, 2006).

Beyond Resettlement: Working toward Transformative Education

Improving the process of acculturation needs to be viewed from a holistic and multidisciplinary perspective. The ideas derived from transformative learning theory can be applied to many dimensions of immigration: psychological, social, and cultural integration, language acquisition, neighborhood revitalization, structural changes in institutions that can give rise to increased opportunities for all citizens to take part and utilize their potential. Improved links between different agencies and educational institutions could also help reduce information and access barriers. Given the vital role that education, health, and neighborhoods play in the lives of refugees and immigrants, more resources could be allocated by government agencies to ensure that neighborhoods could be made safer and more welcoming. Access to adult learning centres, increased funding to build needed day care facilities, churches, community centres, counselling services, libraries, and medical centres are anchor points for individuals trying to establish themselves in a new society (Magro, 2008). These themes can be applied to the larger classroom of life and have implications for all citizens.

In her book *Bringing transformative learning to life*, Kathleen King (2005) suggests that transformative learning offers possibilities of providing a new framework for understanding how adults cope with change and challenge. Authentic learning approaches that include field trips, case studies, debates, portfolio assessments, and research projects are highlighted by King as ways that transformative learning can be facilitated in educational contexts. Transformative learning is connected with insight, problem solving, lifelong learning, and personal and social empowerment. At the macro level, economic conditions, labour forecasts, and international political dynamics challenge adults to learn new skills. These macro forces interact with the intellectual, emotional, and spiritual needs of individuals. As shown in this study, refugees and newcomers are often coping with multiple challenges and are learning skills needed to deal with these formidable forces. King asks two central

questions: What does the adult learner experience? How can the educator/mentor/counselor prepare? She suggests that the design of any adult education program should include these components:

1. Assess the needs of the learner
2. Consider the affective sides of learning
3. Determine the goals and objectives for learning
4. Involve the adult learner in planning
5. Create a delivery process that has many points of active/experiential learning
6. Accomplish ongoing and final evaluation by the facilitator and adult learner.

(King, 2005, p.147)

Research examining the learning experiences of immigrants and refugees over a longer period of time can enrich our understanding of their needs and challenges; the voices of refugees and those who work with them can be a foundation for developing new policies and programs aimed at empowering newcomers in Canadian society. Expanding the boundaries of transformative learning theory to include cultural and contextual factors can provide promising possibilities and new directions for enhancing adult learning in a new era.

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• "Nothing could be more misleading than the claim that computer technology introduced the age of information. The printing press began that age in the early sixteenth century.... Fifty years after the press was invented, more than eight million books had been printed, almost all of them filled with information that had previously been unavailable to the average person.... The fact is, there are few political, social, and especially personal problems that arise because of insufficient information. Nonetheless, as incomprehensible problems mount, as the concept of progress fades, as meaning itself becomes suspect, the Technopolist stands firm in believing that what the world needs is yet more information." (From **Technology** by Neil Postman, 1992).

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Appendix

**Chart 1
Numbers of Immigrants Arriving in Canadian Provinces for 2006 and 2007**

Province	2006	2007
Ontario	125,914	111,312
Quebec	44,680	45,208
British Columbia	42,083	38,941
Alberta	44,769	20,857
Manitoba	10,051	10,955
Saskatchewan	2,724	3,517
Nova Scotia	2,724	3,517
New Brunswick	1,646	1,643
Prince Edward Island	565	992
Newfoundland	509	545
Northwest Territories	98	88
Yukon	63	86
Unknown	9	19
Missing	5	75
Total	262,236	236,758

Source: Manitoba Immigration Facts 2007 Statistical Report, p. 7 Manitoba Labour and Immigration, Immigration and Multiculturalism Division, Summer 2008.

**Chart 2
Manitoba Immigration by Source Country (Top Ten)**

Country	2007
Philippines	3,279
Germany	1,382
India	1,016
China	609
El Salvador	429
Israel	429
Ethiopia	274
Korea	268
Ukraine	228
United States	210
Total Top Ten	8,021

Source: Manitoba Immigration Facts 2007 Statistical Report, p.17

**Chart 3
Top Ten Countries of Refugee Origins (Worldwide as of January 2007)**

Country	Refugees
Afghanistan	2,108,000
Iraq	1,451,000
Sudan	686,000
Somalia	464,000
Congo, Democratic Republic of	402,000
Burundi	397,000
Viet Nam	374,000
Turkey	227,000
Angola	207,000
Myanmar	203,000

*Estimated at over 2 million by September 2007
Source: UNHCR 2007-2008 Report

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Swampy Cree Educational Traditions: Alternative Approaches to Dealing with Conflict in Community Schools

– John George Hansen, University College of the North

Abstract

The purpose of this article is to discuss one of the ancient models of conflict resolution concerning the Aboriginal world, education and restorative justice. This model is largely related to the notion that prior to 1492 Aboriginal societies “the colonized”, had established systems of law and order, culture, languages and values which gave this human community a sense of what can be termed *restorative justice*. Arrays of elements are illustrated: the educational dimension of Cree philosophy; the significance of culture in determining the methods of teaching appropriate behavior, more specifically a discussion on Cree approaches to dealing with conflicts. It is important to note that this paper is an excerpt from Hansen’s (2009) book entitled “*Cree Restorative Justice: From the Ancient to the Present*” which shares conversations he has had with Cree Elders Indigenous to northern Manitoba. The following questions were asked in order to gain insight into the nature and methods of Cree ways of dealing with conflict:

1. What do you believe we need to do in our schools and homes to promote peace and justice in our communities?
2. Could you say something about Cree peacemaking approaches that you have experienced or witnessed?
3. How did the teachings you received from your family and elders influence relationships in your life?

Informed by the elders, a narrative and comparative understanding of Swampy Cree approaches to dealing with conflict are presented. The major assumption of this chapter is that old ways of responding to wrongdoing can be used to deal with various issues and problems that manifest in contemporary schools and communities. Although the study is based on the Omushkegowuk (Swampy Cree) experience of northern Manitoba, its message is relevant to education in Aboriginal communities and society at large.

Introduction

It has been my honor to interview several Cree Elders Indigenous to Northern Manitoba. The interviewees were Stella Neff; Sylvia Hansen; John Martin; William G. Lathlin; Dennis Thorne; and Jack (a pseudonym for one Elder who asked to be unnamed). Through having in-depth conversations with the Elders, I have observed the profound knowledge they have of Cree culture. (Perhaps it is worth mentioning that when I asked questions of the Elder’s I made sure to bring a gift such as a cup of coffee or food, not only tobacco. That is the Cree way of asking questions.) The interviews were conducted in the Opaskwayak territory. I use the term Opaskwayak to refer to the land both on the reserve and in the town of The Pas, Manitoba. Opaskwayak is an Omushkegowuk, (Swampy Cree) community some 600 highway kilometers northwest of Winnipeg near the Saskatchewan border. The name, Opaskwayak translates as, ‘the narrows between the woods’.

The educational traditions that are presented in this work are largely related to an ancient Cree justice model that has been systematically suppressed through the process of colonization (Hansen, 2009; Green 1998). However, the last few decades saw ancient Indigenous restorative justice models resurface in Canada as well as many other countries throughout the world (Johnstone, 2002; Hansen, 2009; Braithwaite, 1999; Friedrichs, 2006). Restorative justice systems are evident in Aboriginal narratives, and these widespread narratives are reflected in modern scholarship. Friedrichs (2006, p. 449), for example, has stated that “it is now commonly noted that restorative justice is rooted in the most ancient and enduring practices of indigenous peoples in what in the modern world has come to be defined as crime”. As a rule, restorative justice offers a methodology for healing victims, offenders, and communities. In Canada, for example, some First Nation communities have already begun to experience positive change as

a result of recovering aspects of their justice traditions. A prime exemplar of this is Hollow Water First Nation (Ross, 1996; Green 1998).

Restorative justice involves recognizing and reaffirming the First Nation teachings that were rejected by colonial powers as State-sanctioned justice was implemented to deal with conflicts in the Aboriginal world.

The approaches to dealing with conflict that are discussed here can be considered characteristic of a traditional *Cree restorative justice model*. This paper examines the idea that *Inniew* (Cree people) have explored and practiced restorative justice in order to arrive at harmony in the community. What the *Omushkegowuk* (Swampy Cree) developed as the conflict resolution process formed the basis of teaching appropriate behavior and is congruent to restorative justice. The idea promoted herein is that teachers and learners can benefit by utilizing ancient Cree approaches to conflict resolution. The Cree word '*opintowin*', for example, describes a process that "involves the principles of repairing harm, healing, restoring relationships, accountability, community involvement and community ownership. The process reflects *opintowin*, Cree for "lifting each other up" (CFNMP, 2004, p. 4-1). As with many other Indigenous people, the Cree approached conflict resolution as a healing journey.

In her exploration of the theory and praxis of Aboriginal conflict resolution, Mclvor (1996, p. 10) notes that an Aboriginal justice process "begins by Aboriginal families and communities accepting responsibility for Aboriginal criminality"; it involves customs where "families and communities can rely on their traditions, values, languages and ceremonies to heal themselves" (ibid., p. 20). The *Aboriginal Justice Inquiry* (1999, p. 22) concurs by stating that the "purpose of a justice system in an Aboriginal society is to restore the peace and equilibrium within the community, and to reconcile the accused with his or her own conscience and with the individual or family who has been wronged". Such theorizing and practices suggests that traditional Aboriginal people focus on healing and not on punishment when dealing with conflicts in the community. In reality, the ideals and practices of Aboriginal justice and restorative justice are one and the same;

repairing harm fosters the restoration of relationships and paves the way for communal healing. Similarly, the *Law Commission of Canada* (2003, p. xiii) views restorative justice as "a process for resolving crime and conflicts, one that focuses on redressing the harm to the victims, holding offenders accountable for their actions and engaging the community in a conflict resolution process". This passage illustrates the communal reparation principle that focuses on restitution, repairing harm and accountability.

The Holistic Structure

A holistic approach was utilized to determine emotional and social aspects of Swampy Cree restorative justice. Such holism adheres to the medicine wheel philosophy, which is an ancient Aboriginal construct that represents the traditional worldview and epistemology of North American Natives (Brown, 2004; Ermine, 1995; Bopp, 1985, Hookimaw-Witt, 2006). This paper is organized using the medicine wheel philosophy, which will be used to examine and interpret the collected data. Basically, the wheel provides a holistic perspective for acquiring knowledge. After all, the medicine wheel is an Aboriginal research paradigm in itself. It speaks of a holistic process by which a person learns. The language of the *Omushkegowuk* people also reveals the connection that the Cree have to the wheel. John Martin, one of the participants in this study, exemplifies this when he explains the literal translation of what it means to be a Cree person.

Being Inniew, I am a four directions person. That's what it means, Inniew, it means four, meaning I have my mind, my body, and also I have a spiritual being; I have feelings, that's how we learned when a person is teaching something. (John)

The Cree word *Inniew* means that our very being is comprised of four parts, the mental, emotional, spiritual and physical.

In terms of searching for knowledge, the wheel teaches us that ideally we learn when we are taught in a way where each of our four human realms is equally developed and balanced; balance is also the key to our well-being (Brown, 2004; Bopp 1988; Hookimaw-Witt, 2005; Hampton, 1995). Hart (2000) states that balance "occurs when a person is at peace

and harmony within their physical, emotional, mental, and spiritual humanness; with others in their family, community, and the nation; and with all other living things, including the earth and natural world". (p.41)

However, to discuss each of the four realms as they relate to Cree conflict resolution approaches would take us beyond the scope of this paper. Therefore, I will concentrate on the emotional and social realm in relation to Swampy Cree conflict resolution traditions.

The Emotional and Social Realm

The Elders described the emotional and social aspects of Cree justice as communal, restorative and holistic. It was expressed that Omushkegowuk approaches to dealing with conflict are done through stories that either directly or indirectly teach one how to correct their behavior, and this is reflected in their response to the question: 'What do you believe we need to do in our schools and homes to promote peace and justice in our communities?' The Elders' expressed the view that the way to promote peace in our communities is through our own traditional teachings, as the following responses to this question indicates:

In our schools we have to more or less go back to our traditional teachings and use the language at an early age. To me it makes sense to actually identify things that the students can relate to and go from there. We can use the language to teach them the peace and harmony. To me that would be the ideal thing.
(William)

This quote clearly expresses William's belief in that the way to promote well being in our schools and communities is through our own traditional teachings, and the language is important to that declaration. John Martin's response to the same question reflects the importance of returning to the traditional teachings:

We have pretty much lost those values like honesty, sharing, caring. We can ask for these kinds of things in the community, but you have to have resources in the community, people that understand, people who know how to

help others, the community development such as, forming a council of elders, women's groups, community groups, youth groups. We have to teach things like those lost values so that people can understand why there is violence in the community, and why there is so much violence in the schools. But we don't teach these in schools anymore, teachers don't know how to work with kids. They send them down to the principal right away, and the principal will suspend the child, because they don't know how to handle it themselves. So the kids become suspended. (John)

John's words contain a critique of the Western system of punishment, which does not work, and why? --because we do not teach our values in school; 'values like honesty, sharing, caring' are key to healing. For John, punishment, like suspension from school, is not the answer to promoting the well-being of Aboriginal communities. Similarly, in her response to the same question, Sylvia emphasizes the importance of the traditional work ethic or value:

Right now, what I see in Thompson here is pretty rough. It's a pretty rough place. I was looking at the newspaper yesterday, the police report what the kids are doing; I don't know if they're teenagers or who they are. But, they were throwing snowballs at the cars. There are lots of those kinds of things here in Thompson right now. It may be because the kids no longer work because it is different than what it used to be. It's very different now.

John Hansen: *Do you mean that the kids used to work in your time and now they do not, so they are getting in trouble?*

Sylvia: *Yes, because the way they have been raised it's in a town where there is running water and they don't have to do any work.*

The concept of work needs to be interpreted from an Omushkegowuk perspective. When kids do not work they do not know how things (life) work. For example, in our traditional culture, we did not just buy our food and eat it.

Instead it was necessary that one know the whole process of obtaining and preparing it, and that knowing comes from doing. This is what the elders mean by work. Similarly, Stella responded to the same question by sharing her views that espouse the need for traditional values:

We have to get back to our basic values in the school system all of those values that were ridiculed, those values that they tried to take out of us like our language and our culture to de-Indianize us. I was strapped for talking Cree in school, I was strapped if I asked to go to the washroom in Cree, and I was strapped if I was hurt and needed to express myself and that's the way it was for my brothers and my sisters. And my father finally by the time of the tenth child, he said no more talking Cree in this house because all of my children come home crying every day and I don't want to hear about their pain in school so we stopped talking Cree to the three littlest ones in our family. And I would say that those three are the ones with the most problems because they don't have those strong teachings that we had that are associated with our language, and the same with the justice they don't have that code; it's not there. But I never liked the word justice for one thing. Justice has this ring to it that somebody has to pay or somebody has to do something like revenge and it was not there, but it's in our schools now. It becomes trouble when the revenge is there because we don't have those values. No more thinking about it is what 'Poonā 'yétum' means. After the conflict has been resolved and that's a good thing because when you're not thinking about it, it's resolved; but if you keep thinking about it, then it's not resolved. (Stella)

Here, Stella expresses the resultant effects of the physical and mental abuse that occurred in the Indian day school. While the Cree language is the means by which we pass on the values, the strap was used to suppress the language, and this had distressed her family to the extent that her three youngest siblings did

not learn the Cree language, which obstructed the internalization of the values. Stella explains that her father hoped to protect the younger children from the same physical and mental abuse that the older siblings endured by prohibiting the language from being spoken in the home. What is interesting, however, is that these three youngest siblings also developed more difficulties in life than their Cree brothers and sisters who have the language.

When I asked Stella the question: 'Could you say something about Cree peacemaking approaches that you have experienced or witnessed?' She replied:

The peacemaking that I have seen was in the immediate family with my parents and my grandparents when there was a conflict. They would get involved; the elders would get involved, and they would counsel more than reprimand. They would take those aside; they would separate the two who were having the conflict and they would counsel them until such time that they themselves would know what they needed to do in order to resolve the conflict. My father was good like that with the children. They would always separate us; the girls would go with the mother and the boys with a father, and counseling happened that way and even with adults it happened that way. We would be counseled from the elders or sent to talk or asked to talk to the elders if we were really in trouble; so that's how it happened in peacemaking. (Stella)

For Stella, traditional peacemaking involves non-punitive teachings or no punishment at all, and the elders were central to this process. In terms of counseling, it is about making us consciously aware. The kids will feel what impact their actions had on the other. They will learn compassion and this encourages them to help in the healing process. Similarly, in response to the same question, John Martin recounts his experience in facilitating a healing circle in the town of The Pas, in which he explains how a conflict was resolved through the circle:

There was this person threatening others

with guns; it was a real serious offense. I held a circle to resolve it... having the circles, it creates understanding, communication, in how we relate to each other... once a person experiences that kind of thing, you can see how it helps other people in different situations, settings or different kinds of offenses, and being involved. It may involve young men, beating up, or using weapons against each other. And we experience resolving these conflicts with them. Like the conflict in the community with these moms who became the offenders too... but they didn't want to go through the system. Instead, they wanted to create understanding about why it escalated that way. So it was resolved in the way of forgiveness, understanding, and there was no charge, and there was no, what you call a record, because we resolved it that way... also have a prayer for the ones that are going to be coming into the meeting to resolve things. (John)

Some of the crucial features in John's response are that the healing circles emphasize restoration and healing rather than revenge and punishment; it is a process that leads to inclusion with, rather than exclusion from, the community. It is a process with a spiritual dimension, prayer, in the peacemaking process. Such comments about 'forgiveness' and 'understanding' are largely related to restorative justice. This restorative dimension of an *Omushkegowuk* justice ideology recognizes that one can only forgive if the one having hurt you understands what he or she was doing. Also, that individual wants you to understand why he or she was doing it, and so it goes both ways. This is the basis of restorative justice, which John is talking about. In her response to the same question Sylvia stated:

Yes, there used to be lots of old people who would talk to young people and tell them to...pause. Not that long ago there was this old lady, but she died now. But I used to talk to her up town and one time she said it's good that you look after your husband when he's sick because you will never be sorry if something should happen to him. They used to advise kids

about things in that way. A lot of the old people at that time used to tell the girls to watch for themselves at that time so that they don't get in trouble like to go and get pregnant. Those people used to tell that to the kids; but that's the same thing with the boys; they were told to behave. When I was growing up in The Pas on that reserve, all those boys, it seemed like they were shy of those girls. They hardly talked to them; they were shy and they didn't talk to them very much. (Sylvia).

This statement is consistent with the culture of the *Omushkegowuk* in the sense that the Old Ones' guided younger people into the realm of education, and this includes practical advice, which includes peacemaking approaches.

The concept of gender became apparent in her response to the question 'How did the teachings you received from your family and elders influence relationships in your life?' Stella stated that:

A lot of the teachings that I received as a mother were received from my grandmother...we learned about relationships that way... and we observed my grandfather when he was cutting the moose, and my grandmother when she was making pemmican...And you see that a lot of our education was done by observing how it happened. (Stella)

Stella indicates that although boys were normally taught by men, the understanding of the process (the moose meat preparation) was, of course, also passed on to girls. This is in accordance with holism. Although in general, women processed the food (e.g. making pemmican) that men harvested (moose meat), girls also learned about the process of hunting, and you can make an educated suggestion that boys learned about the process of processing the food as well. Clearly, there are gender roles in our traditional form of education, but they might not be as restrictive as it looks. This also illustrates that education was largely based on observations.

In his response to the same question William speaks of how he lost that sense of

'trust', and he suggests that one of the most devastating effects of the residential schools was the social destruction of trust that is so crucial to a functioning family:

The impact of it has split up families, took away the children, and so some of the parents didn't really know the rules anymore. Because the state more or less invaded the home, it affected how the parents raise the child, and the responsibilities of how to raise the child and the consequences of their action or inaction. So those things changed.
(William)

William is not alone here. Stella, Sylvia, Dennis, Jack and John also recognize that the suppression of language and culture resulted in much of the social disarray of *Omushkegowuk* families and communities. Colonial education played an important role in the development of punitive consciousness. It has prevented the healing foundation of justice from continuing in the *Omushkegowuk* world. In her response Sylvia states that:

Well I can see what they meant now after a long time ago. I can see what they meant, because a long time ago those old men used to talk about how it's going to be harder later on. They say there was going to be more people coming to this land and it's going to be very hard for the people. That's exactly what's happening right now. The natives you see them walking around, and they don't get hired on anywhere. I think that's what they must have seen in their vision. So I guess it must have been true what they meant. (Sylvia)

This passage by Sylvia is something that I have heard many times from elders' who often say that the lessons we receive in life may not be understood until a much later time. In his response to the same question John stated:

When I was growing up you never speak out against your elders or your parents; you have to respect that. You have to honor them; so learning, listening to learn it was a big part, when we listen and also telling us this is what you need to do. This is what

you have to do, and it would start to fall into place; all things that they teach you, you learned. It was a time that when growing up in the community we didn't have no power or electricity, no running water, everything was done by hand, we had to saw, cut wood by hand, saw would be by hand, get water from the lake, make sure that we fill up their ...pause... my mom would say go help that old man, make sure he has that especially in the wintertime, when they need to stay warm. Make sure they have water, so we did that, and we learned to respect those old people like that, and they would tell us things too, they would tell us stories, these kinds of stories that would help us in life, these are the teaching stories and you grow up with the stories. Just like when the creator sent somebody to help you, are having a hard time, and so you have to listen to that person that the creator sends, a lot of times it is the elders, they tell us what to do, but now a lot of times we don't listen to them, and we don't get that help that we want, because we don't listen to them. These are the things that the old people taught us, listen and obey. That's the message. (John)

This passage is another illustration that the old people were highly respected in the *Omushkegowuk* community and that we must persist and continue to consult the old people in the present time.

Discussion of Findings in the Emotional/Social Realm

There were four major obstructions to healing in the emotional/social realm. The effects of residential and public schools, that is, colonial education was identified as a major factor in the loss of language, traditional teachings and values. Obstructions to healing were very much related to the effects of colonial education and its ideology. A commonly held notion among the participants was that the alienation from traditional values, teachings and language contributes to social problems in the *Omushkegowuk* world. The implication of this alienation is that it is an obstruction to healing. The alienation from cultural teachings and values decreases the ability to heal in the

emotional realm. The residential schools, as well as imperialist public education, played an important role in the suppression of traditional teachings, language and culture which participants suggest is the cause of various social problems in their home communities.

It is well documented that there is also a relationship between residential schools and social dysfunction (Jaine, 1993, RCAP, 1996; Cuthand, 2005). We know that those who have been abused tend to become abusers, and so the residential schools provided a significant stimulus in creating a climate of social dysfunction and disarray that remains to the present time.

The four major healing factors in the emotional realm were counseling from the elders, first languages, stories, and traditional values. This is consistent with Aboriginal justice models that emphasize the restoration of community identity, values and practices (Roach, 2000; Johnstone; 2002; Ross, 1996). A significant aspect of the participants' responses in this realm is the degree to which healing was largely related to the ideology of restorative justice. Participants emphasized the importance of traditional teachings. Stories, ceremony and community combined, and the outcome was a restorative justice process. This holistic and educational healing process encouraged offenders to understand the impact of their behavior and also encouraged them to make reparations which contributed to the healing of victims and the restoration of balance in the community. Perhaps Stella articulates it best by describing a successful Omushkegowuk justice outcome. She uses the Cree word *Poonā 'yétum* to describe the ability to forgive:

No more thinking about, it is what Poonā 'yétum means, after the conflict has been resolved; and that's a good thing because when you're not thinking about it, it's resolved. But if you keep thinking about it, then it's not resolved. (Stella)

For Stella, *Poonā 'yétum* refers not only to forgiveness but also to a state of harmony and balance. It describes a healing process, a restorative justice process that for the community, victim and offender demonstrates the fundamental idea of our ancestors. The basic idea is that justice is a matter of healing. Only when we heal from wrongdoing can we

experience *Poonā 'yétum*. In order for this to occur, the victim, offender and community must be satisfied with the justice process.

It is well documented that justice for First Nations in Canada, and many other Indigenous peoples, was restorative in nature because it emphasized healing rather than punishment (Ross, 1996; Green, 1998; Monture-Agnus, 1995; Johnstone, 2002; Turpel, 1993). Indication that healing was a major theme in the participants' conceptions of Omushkegowuk justice became increasingly obvious during the analysis. When participants talked about Omushkegowuk justice, they were indeed referring to a healing process. In the emotional realm, the elders emphasized a peacemaking process comprised of restorative justice ideas and practices that stem from their lived experience and thus knowledge of the culture.

The concepts of spirituality and balance are recognizable when we consider the Omushkegowuk belief that plants and animals, like humans, have a spirit; we can begin to see how this holistic worldview manifests itself in the idea that the spiritual world is real and is connected to the physical world. Let me give you an example of the idea that existence is interconnected. When I asked John Martin if there is a connection between spiritual ceremonies and peacemaking methods, he responded by saying that:

...everything is spiritual, the trees are alive, the grass, the rocks, they have a spirit. The animals they have a spirit and so the ceremonies are based on those teachings.... But when we do it our way, the proper way, the way of smudging, using the rock or the feather, the purpose is spiritual. (John)

For John, an Omushkegowuk way of perceiving and understanding the world involves the idea that everything is alive, with spirit, feelings and consciousness. John spoke of the trees, plants, animals, grass and water being alive and having a spirit. John was not alone in this understanding, Stella, William, Dennis, Sylvia and Jack were also expressing holism and spiritual beliefs, and like John they were acknowledging the metaphysical world. The spiritual dimension in the traditional belief system was a common theme in the elders' accounts of justice, which indicate prayer as a crucial aspect of the peacemaking process. Many elders

expressed that spirituality was used to promote peace in the community. Spirituality is important in the traditional *Omushkegowuk* justice process, and consequently tribal justice models are spiritually oriented.

John Martin also emphasized the importance of balance, and emotions, in understanding the *Omushkegowuk* belief system. He pointed out that the emphasis on the mental and physical aspects in the mainstream education system results in learning difficulty because half of human existence is left out of the process. This is how we must approach conflict resolution as well. We have to approach it holistically, that is, we must include the feelings and spiritual understandings in relation to the environment; otherwise there will be no conflict resolution.

Conclusions

This chapter discussed the emotional and social aspects of Cree approaches to dealing with conflicts in relation to education. The Elders' expressed that teaching appropriate behavior is based on the understandings of the whole process of life and the understanding of what happens to survival if those processes are not understood. In the social realm, this understanding is based on feelings. In the contexts of feelings, the Elders suggest that traditional education developed appreciation for the land and that stories were used to teach appropriate behavior. In short, the Elders' describe traditional pedagogy as a matter of non-punitive teaching and that conflict resolution was garnered without the use of punishment. For the *Omushkegowuk* conflict resolution does not demand hostility towards wrongdoers. The Old Ones suggest that restoring our traditional justice systems, that are grounded in the ideology of restoration and healing, is crucial to the promotion of our social, emotional spiritual and physical well being. Therefore, an *Omushkegowuk* response to conflict encourages accountability, repairs harm, restores relationships, forgives wrongdoers and advocates peace. This is what our ancestors did, and this is what we as educators should continue to do.

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Creating Safety and Opportunity for Overcoming Learning Barriers: Learning to Read by Reading

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Abstract

Although our classrooms are increasingly more open to alternative teaching and learning approaches, competence and confidence in reading remains a critical component for student success in school. Unsuccessful readers carry a huge emotional burden that creates barriers for any remedial strategies. Efforts to transform the task-related fear of failure (with the associated challenging student behaviours) must combine development of emotional competence in students with reading-for-success strategies.

Two school-wide collaborative approaches among classroom teachers, teacher assistants, and the special education resource teacher in two remote Aboriginal communities are discussed here. The programming resulted in dramatic improvement in students' reading competence and their capacity to benefit from all areas of the classroom program. The specific activities were determined by the nature of the educational environment and the available resources of each place. However, both initiatives championed two core beliefs related to *safety* in learning communities and *learning by doing*.

Attention to *relationship* was a key factor in creating safety for learning. Consideration of teacher/student, student/student, teacher/teacher, and student/home/teacher relationships was important in both planning and interacting during the various learning opportunities. Learning by doing in the context of these initiatives meant maximizing student opportunity to *read*; thereby helping transform student perception of self from that of a non-reader or poor reader to that of a successful reader.

Children learn to read by reading. They do this best in an enjoyable and supportive environment within which they are nurtured to become excited about being *readers*.

My name is Brenda Firman. In the circles of institutionalized education, I have earned the right to be called 'doctor'. For me, the 'doctoring' process was one of learning how to speak and share a 'praxis' that was grounded in my twenty years of learning about my 'English' birth culture through my personal and professional experiences in my Anishnabe adoptive culture. It was grounded in my parenting experiences with my children, 'step'-children, and live-in grandchildren who span the cultural divide from privileged 'white' to mixed heritage to 'full-blooded' Aboriginal. It was grounded in over twenty-five years of teaching/learning experiences in settings from early childhood to post-secondary and from inner city to suburban to 'country' to reserve locations. It was grounded in the everyday realities of life on isolated reserves where many children and youth are 'failing' in school and choosing to opt-out of life, some opting for the permanent solution of suicide.

My name is Brenda Firman. In some Aboriginal circles, I introduce myself with my adoptive names... *loon woman, adopted into the bear clan*, called to become *thundering spirit woman*. After much reflective thinking, I have concluded that there is a basic cross-cultural difference in teaching. In my mainstream life, I have been taught that the *curriculum* is the most important element. Of course, we must be understanding of and sensitive to student needs. We need to expertly manipulate students, our teaching, and the learning environment so that

the curriculum can be learned. From an Aboriginal perspective, I have learned that *children* are the most important element. Of course, we must be understanding of and sensitive to the underlying intent for learning that is expressed in the curriculum frameworks. We need to expertly manipulate the curriculum, our teaching, and the learning environment so that we can be in good relationship with students and help them to embrace school-based learning and feel supported on their individual and collective journeys.

Many efforts are being made by many people to make learning in schools a successful and enjoyable life experience for all students, and especially for students who experience challenges in learning within the currently available classroom contexts. Successful pilot projects and other initiatives are documented in many places, including previous issues of this journal. However, many schools, classrooms, students, and teachers do not enjoy the benefits of supported and resourced pilot projects and initiatives. Following my belief that the more local the story, the more it resonates globally, this article presents possibilities for supporting 'learning to read' by sharing a few experiences that have made a difference for some students. Described herein are collaborative approaches among classroom teachers, educational assistants, and the special education teacher in two remote Aboriginal communities with K-10 school populations of approximately 100 students. The programming resulted in dramatic improvement in students' reading confidence and competence, and in their capacity to benefit from all areas of the classroom program. The descriptions do *not* provide a recipe, but rather illustrate an approach and way of working together within existing realities in a school. The specific activities in each school were determined by the nature of the educational environment and the available resources of each *place*. However, both initiatives championed two core beliefs related to *safety* in learning communities and *learning by doing* in a supportive environment.

Although our classrooms are increasingly more open to alternative teaching and learning approaches, competence and confidence in reading (and writing) in 'school' English remains a critical component of student success in

school. Unsuccessful readers carry a huge emotional burden that creates barriers for any remedial strategies. Efforts to transform the task-related fear of failure (with the associated challenging student behaviours) must combine development of emotional competence in students with reading-for-success strategies.

The Young Writer

Reading and writing (like addition and subtraction) are intimately related. If children learn to read by reading, it follows that children also *learn to write by writing*. I offer the following story to illustrate the underlying concern.

The thing is... she wanted to write, and always believed in herself as a 'writer'. From a very young age, whenever she came across paper, she would staple mounds of it together and proceed to "scribble" wavy lines across every page. When she was young, I accepted this with a smile. As she grew older, with her written skill development not matching the expected norm, I would sometimes criticize her for "wasting" paper. Fortunately, this did not stop her efforts... although she often hid her masterpieces from my view rather than proudly sharing them with me. Later, in Kindergarten, she was forced to sit extra time at her table to complete printing sheets while she watched the other "smart" kids play. 'School writing' was now connected with how neatly and correctly she could print disconnected letters. She learned to "hate" writing at school, but continued her scribbled authorship at home (often in little blank paper books she made for herself at school during free time). Sometimes, the first few pages of a handmade book would have some printed letters and words, followed by page after page of wavy lines.

Fortunately, her writing skills grew in leaps and bounds as she embraced internet "chat". At home, her constant demand for anyone in the vicinity to spell words for her was not always met with the excitement or patience her learning deserved. Sometimes we took the time

to help her sound out the words. Often, we did not. It was her own idea to grab pieces of paper for others to write on so the words could be written for her to copy. Her independence grew as she remembered previously asking for particular words and then searched the scraps of papers that lay in disarray on her desk instead of asking for help. It was important to her to spell the words correctly, so others could understand her (and perhaps so she would not be judged). Not until much later did she begin adopting the jargon spelling of chat lines. At the time, I was concerned; but now I understand this better as her embracing phonics (in reverse). Her desire to learn the songs of popular music motivated her to find the song words on the internet and copy them for herself – page after page painstakingly copied, with crossed out words as she recognized her errors and reversals. Recently, at home, she has begun writing her own free form poems and messages that express strong feelings. But she still hates and tries to avoid any kind of writing at school and is “below level” and “learning disabled” in the school environment.

Antone, Miller and Myers (1986) speak of the years up until 8 to 10 years of age as a person’s “Days of Decision” during which several very strong needs are met, either positively or negatively. These needs include:

- *to be seen*
- *to be heard when we communicate*
- *to know that our communication is accepted and believed*
- *to know that others have faith and trust in us*
- *to be allowed to take our place in the world*

When students are not successful in meeting school based expectations for reading and writing, they often meet the above needs in negative ways – through withdrawal or disruption. This was the situation in one northern school where three specific strategies that recognized and

responded to the emotional component of learning in a second language and culture contributed to a changed learning environment throughout the school.

Responding Differently

Recounted immediately below are two classroom accounts of success achieved in an early years and a middle years classroom.

One young Grade Two boy was referred to Special Education because he couldn’t do **any** work in class and contributed a strong disruptive energy to the classroom. He was identified by the classroom teacher as struggling in both English language arts and mathematics. We worked together with an available kit that included short books. I followed a well-known technique borrowed from parents. On the first read through, we read together. On the second read through, the student read alone – but I helped immediately with any words he could not easily read. On the third read through, I included some ‘sounding-out’ assistance before providing the unknown word, when necessary. Before long, we were both identifying the student’s lack of confidence as a major impediment to successful reading. Whenever the student began stumbling in his reading, I suggested he take a breath and try again. The student internalized the breathing technique and began using it in the classroom. He soon began excelling in Mathematics and was able to provide assistance to other students in the room. Within a month, the student became actively engaged in all the classroom learning. I continued to support reading development by including the student as part of a group in which students were able to support each other as they learned. We read and wrote together in a variety of ways, stopping for brief mini-lessons to learn specific tools and techniques in response to needs that surfaced during our activities. The young man’s success motivated teachers to reconsider both their interpretation of student ‘problems’ and some of their teaching practice.

Intervention in this Grade One classroom focused on engaging students in reading by

moving beyond phonics approaches to use picture communication symbols within simple stories, using familiar words such as student names and common items. This was an intervention of desperation. The school had no appropriate reading materials for this full class of 'non-readers'. The students had no interest in print-based language learning. The picture communication symbol materials had been acquired during a spring break trip to access augmentative communication support for a special needs child. They served as a strong resource for teacher-developed 'learning to read and write' activities. With only a few months left in the school year, we needed an immediate strategy that could positively impact each child's perception of him/herself as a successful reader and writer. Instead of taking a few students for withdrawal assistance, I became part of the in-class instructional team. The strategy worked! By the end of June, the majority of students in the class looked forward to their English language instructional time and believed in themselves as successful. With this attitude shift in place, we were able to order appropriate resources to continue active reading and strategic skill development for these students as they moved on to Grade Two.

In a middle years classroom, a group of boys were losing all sense of self-esteem because of their poor performance on their weekly spelling tests. Providing assistance in the resource room was out of the question since it would only serve to reinforce the boys' very low opinions of themselves as learners. Their teacher was not open to alternative approaches to classroom instruction that might match student learning styles and knowledge levels more accurately. Our team in the resource room needed to focus on the issue from the perspective of the young men. A young woman from the community ventured into the classroom in her role as an Educational Assistant. She was able to speak with the boys in their community language and help them to persevere in their practice so they could spell the words correctly. We had to temporarily let go of our teacher-like desires to have the

boys understand the meaning of the words well enough to be able to use them effectively and in context in their speech and their writing. The boys worked very hard at memorizing, their spelling scores increased dramatically, and the tenseness of the student/teacher relationships diminished a little. After this success, the boys themselves asked to come to the resource room for continued help with their spelling words. As they became more comfortable and confident, I was able to move beyond the spelling practice and begin working with them as a group to fill some of the gaps in their reading competency. Once again, the focus was on reading together, this time as a group with no room for perceived failure by any individual. To show respect for the boys' age and experiential maturity, we read material from adult literacy programs. This provided opportunities for their supported exploration of more age-appropriate thoughts and concepts. We trusted that each boy put his best effort into our activities.

Teaching Differently

The second school was resource-rich, but teaching staff had no training for using the wide variety of new literacy resources. Repeated traumas in the small community had seriously depleted the emotional resources of both students and teachers, many of whom were local community residents. The academic lag often associated with second language learners was worsened by the extensive trauma-related school closures during the previous few years including loss of lives in a plane crash, house fires, and yearly suicides of elementary students. Teachers were requesting special education support for the majority of their students.

We focused first on the early years, using all available staff in the school to provide small-group learning opportunities for the students during English language arts and mathematics instruction. We used every nook and cranny we could find in the school to physically separate the established student groups. Most groups switched every 15-20 minutes. This allowed students to release

built-up emotional energy through approved movement. It supported the strengthening of an ability to focus – both beginning tasks quickly and remaining on-task. We used a *relationship* lens in forming groups, selecting the supporting adult for the group, and choosing the instructional activities.

Our classroom-based learning activities for language arts included:

Learning activities requiring minimal support

- Computer software that required students to choose the correct picture to match the verbal cue given. Used effectively, in short bursts of 15-20 minutes, three or more times per week. Helped children develop a more extensive English vocabulary. Adults also encouraged the children to repeat the word as they clicked on the appropriate picture. Progress was individualized. This activity could be monitored after-hours by the teacher.
- Collections of small books targeted at the pre-reader and developing reader stages. These collections allowed for *independent practice*.
- Classroom libraries of materials chosen carefully by teachers for readability and vocabulary, across the skill levels of students.

Learning activities requiring active adult support, but minimal 'expert' training

- Assorted dictionaries including a variety of picture dictionaries and themed dictionaries. These were used for further developing vocabulary and for phonics-related practice.
- Audio books, including teacher resources for each story that also provided follow up assignments for students. Educational assistants were easily trained to support this activity and received direction as required from the teacher.
- Computer software that supported and built story-writing skills.
- Computer software that provided a game-type environment for building reading and writing skills.
- Text-to-speech software to support students in learning to use internet-based resources.

Learning activities requiring trained teacher support

- Skill building programs and approaches such as the Association Method and Dolch. These groups were led by either the teachers or by Educational Assistants who received training and ongoing support from the teacher.
- A targeted reading series that developed pre- and post- reading skills and comprehension. These groups were led by the classroom teachers.

The cornerstone of our approach was in the Special Education Resource room where I engaged groups of students in supported reading using the Nelson PM series. This portion of the programming approach was extended to all students in the school. After a very brief and informal assessment for reading level, each student was given the set of books from her or his level. Students chose which book they wanted to read. Our U-shaped table arrangement allowed me to sit in the centre and support six students simultaneously, providing unknown words and encouragement to remain focused. Students recorded the title, author, and main characters of each completed book. Comprehension checks were verbal, as students told me about their stories and responded to my prompting questions. I occasionally gave students a written comprehension exercise using the series black-line masters. However, this was never permitted to be a lengthy intrusion on their developing joy of reading nor to erode their growing confidence in themselves as busy, focused, successful students.

The students were in control of their own learning. They decided if the book was "too easy, too hard, or just right", and I provided different sets of books as requested, without second-guessing their decisions. These sessions were thirty minutes of intensive work, simply getting down to business and reading. However, this was very different from uninterrupted silent reading. The fact that most students read out loud permitted me to monitor their reading and provide assistance quickly. As students progressed

to more developed levels of reading, I would ask them to read a short section to me after they completed the book. The closeness of my supportive presence was a critical factor in maintaining student focus and motivation. The learning environment was simultaneously individualized and collective. Students provided much peer support. Students choosing from the same group of books began eagerly discussing their books with each other.

For the first month, my energy output in these groups was truly exhausting, particularly with the pre-reader groups. The students became more self-aware as they learned to take deep breaths or ask for alternative activities rather than hurling their internal distress onto the rest of us; misery truly does love company. Occasionally, when emotions were simply too intense, we would stop and do something non-stressful and fun together. Before long, we were all enjoying this intense reading time. I can truthfully say that by the end of the first term, all students became interested and motivated in reading; and most, but not all, were successful by academic standards, with impressive increases in grade-level reading scores for many students. Our approach helped us towards more clarity in distinguishing the few students who really did require more specific assessment to find the appropriate keys to unlock the door and meet their learning needs. Nevertheless, even these few students believed in themselves as *readers*.

Teaching as *Supporting Learning*

It is the responsibility of the teacher to ensure the student does not experience 'not knowing something' as a sense of personal failure. Perhaps that is why, in school, we cling to teaching discreet *parts* of reading before focusing on the *whole*. But, as they say, the whole is more than the sum of its parts; and many of those parts exist only *within* the reading context. Learning to become a strong reader *can* be a more natural process. I sense that we would have many 'walking-disabled' and 'talking-disabled' students if we manipulated the learning to walk and learning to talk processes of our children with the same attitudes and beliefs that we approach reading. Teaching the discrete

decoding skills that support the reading process only makes sense for students if they willingly engage in the process because it feeds their natural curiosity and interest in learning or if they willingly engage in the process because they are able to appreciate how it can support them in a self-declared desire to become a stronger reader.

Teachers today face tremendous systemic pressures that may make it difficult for them to focus on why they chose to enter the profession. These stories suggest an approach that involves trying differently, not harder. A safe learning environment for our students comes from *inside* each student. If we can make room in our teaching practices for relating to our students as *whole beings*, we will remember that paying attention to the emotional aspects within our classrooms and schools is critical for student success. If we can reframe 'learning by doing', not as independent trial and error or as putting something together once you have mastered the pieces, but as supported experiences with 'doing reading'; we can support our students in unlocking their natural abilities and become joyful readers.

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"From millions of sources all over the globe, through every possible channel and medium - air-waves, ticker tapes, computer banks, telephone wires, television cables, satellites, printing presses - information pours in. behind it, in every imaginable form of storage - on paper, on video, and audio tape, on discs, film, and silicon chips - is an even greater volume of information waiting to be retrieved. Like the Sorcerer's Apprentice, we are awash in information. And all the sorcerer has left us is a broom. Information has become a form of garbage, not only incapable of answering the most fundamental human questions but barely useful in providing coherent direction to the solution of even mundane problems....the tie between information and human purpose has been severed, i.e. information appears indiscriminately, directed at no-one in particular, in enormous volume and at high speeds, and disconnected from theory, meaning, or purpose."

(From *Technology* by Neil Postman, 1992).

Aboriginal mothers' perspectives on how children acquire language.

- Luella Jonk, PhD University of Manitoba

Abstract

Child developmental psychologists have studied the topic of language development for many years. A substantial amount of the research completed in this area focuses on Western mothers' ways of facilitating language. With increasing numbers of immigrants entering Canada over the past several decades, educators have become more sensitive to the various genres of communication competence and discourse patterns within a given culture. This exploratory study revealed Aboriginal mothers as being competent and knowledgeable regarding Western-based language facilitation practices. Clinical implications are such that speech-language pathologists (SLPs) may look favourably towards the use of Western-based language facilitation techniques with Aboriginal children, where therapy is warranted.

Most developmental psychologists would agree that for any child, there is an inherent amount of learning potential. Chomsky (1965) set out an innate language schema, which he postulated, provides the basis for a child's acquisition of a language. The capacity for this learning to flourish and grow depends on environmental factors. Whitehurst (1978) describes three social learning variables concerning language development: feedback, imitation, and communicative context. Access to language socialization within the individual's main social group is a contributing factor to a child's development (Schieffelin, 1983). Children's interactions within their social milieu, the type of games and toys, books, play activities, and caregiver expectations for certain behaviour, will all affect the type of language used.

As a speech-language pathologist (SLP) working in First Nation (FN) communities in Manitoba, I have witnessed many FN children having language profiles that fall within two standard deviations below the normed levels on standardized tests. I therefore completed a study which gathered Aboriginal mothers' and Western mothers' perspectives on how children learn and use language, the linguistic interactions which

occur between the mothers and their children, and the type of environments in which they learn. Results indicated that Aboriginal mothers have good knowledge of language facilitation techniques. Furthermore, the study revealed that there appear to be many contributing factors relating to communicative competence of their children; dual language learning is one of the main contributing factors. Other factors relate to poverty and remoteness, which ultimately impact access to services.

Professionals working in the field of language facilitation in First Nation communities strongly support the notion that culture and context influence language acquisition (Ball, Bernhardt, & Deby, 2006). S. Peltier and C. Wawrykow, two SLPs from M'njikaning First Nations and the Skumas-Carrier Tribe in Ontario respectively, made valuable contributions to this knowledge in the Ball et al. (2006) study. Lifestyle differences in terms of parenting, community demographics and context may vary children's language ability. These differences can be displayed through body language, eye contact, whole-to-part learning style, visual-kinesthetic learning style, verbal response time lags, speaking volume, and frequency.

An example of response lag times was given by Wawrykow, who stated "I have seen verbal response time lags up to ten seconds between when one person [FN people] ends talking and the other starts. The general population expects an answer within two seconds" (p.61). Philips (1983) took an in-depth look at the differences in classroom behaviour between non-Aboriginal students and their American Indian peers in the state of Oregon, and found distinctive patterns of behaviour. Philips (1983) made note how the differences seen in communicative behaviours of the two cultures became less and less noticeable as the students moved from Grade 1 to Grade 6.

A study of cross-cultural language acquisition patterns would not be complete without mention of dual language learning and dialects present in homes where two languages are used. As stated in earlier in this paper, the

language acquisition of a child will depend precisely on that environment or social context in which the two languages unfold. Thus, factors such as *who* the people providing language stimulus are and *when* the second language is introduced are important (Paneque, 2006). One myth surrounding bilingualism refers to the process of acquiring the second or target language. No bilingual child will acquire the two languages the same way. An additional myth about children acquiring a new language is the notion that a child will experience cognitive overload. This myth stems from the belief that all languages are learned within one area of the brain; and therefore, as the second language is being acquired, the first language will subsequently be affected in some capacity. Genesse, Paradis, and Crago (2004) refer to this view of dual language learning as the limited capacity hypothesis. There are numerous studies referring to the lack of evidence supporting this all-or-nothing hypothesis (Cummins, 2000; Garcia, 1983; Paneque, 2006; Oller & Eilers, 2002; Tokuhama-Espinosa, 2003).

A slightly different view of the process would be to think of it as children acquiring the two languages simultaneously, and not dichotomously. Spanish bilinguals in Oller and Eilers (2002) review evidenced context dependent learning. In this study, it was shown that English monolinguals out-performed bilinguals in acquisition, which suggests that frequency of exposure of the input language predicates one's efficiency in that language. Both monolinguals' and bilinguals' acquisition of a language can be slowed depending on the context, which negates the possibility of there being an innate propensity within a child to acquire a language. All children respond to languages heard within their environment, however, the higher exposure of one language will be a predictor of the level of proficiency for that language, especially in terms of oral language, and less in literacy.

In any environment where there is an additional language other than English, English dialects are likely to evolve. Dialectal differences are apparent not only between various cultural groups but also within one's culture. For example, mothers of Western middle-class backgrounds view preschool years

as crucial in preparing their children for school (Feagan & Farran, 1982). There is a considerable amount of variation in terms of child rearing practices within any group (micro-cultural variation), as there is between the groups. This point is significant in cross-cultural research when reporting on the capacity to generalize findings between cultural groups.

Purpose of Study

This research study was developed to address the need to establish an understanding of how Aboriginal children develop language. It was completed in one First Nation community, Lac Brochet, which is located in the extreme northern part of Manitoba. In order to better understand Aboriginal children's communicative competence, two main research questions were addressed:

1. What do caregivers perceive or believe to be child-rearing practices that are influential in promoting language development in their children? and
2. What do caregivers report regarding how frequently they use discourse practices believed to be influential in terms of language development?

The 36-item Survey used to gather the mothers' perspectives - did little to reveal differences in child rearing practices between the groups. In fact, the Dene mothers reportedly used Western language facilitation techniques more frequently than the Western mothers. These results, along with the fact that children in Lac Brochet are raised in a dual language home, form the basis of my claim that Dene mothers are competent users of Western language facilitation techniques

Evidence of Mothers' Knowledge

The strongest evidence of Dene mothers' use of Western language facilitation techniques was revealed in the surveys' responses. This Survey (Appendix A) was reproduced in part from a survey used in Johnston and Wong (2002) cross-cultural study with Chinese and Western mothers. The initial 24 questions in the survey focused on belief statements, while the last 12 questions focused on the frequency with which mothers use language facilitation techniques reflective of Western values. SLPs

are encouraged to teach mothers to use these techniques to enhance speech and language production (Muir, Gerylo, Gompf, Burke, Lumsden, & McCaig, 2000). The frequency-based questions which helped to identify cultural groups (statistically significant) were Items 28, 32 and 35; that is:

Q. 28. *Follow along with my child's topic of conversation,*

Q. 32. *Change my words or sentence when my child does not understand me, and*

Q. 35. *Ask my child to repeat a sentence after me.*

For these questions, the Aboriginal mothers reported practicing these interactions more often than Western mothers. Additionally, there were two Items 29, and 33 that approached statistically significant levels:

Q. 29 *Repeat what my child says, adding new words, and*

Q. 33. *Talk with my child about what happened that day when I wasn't there.*

Example: at preschool, or at home while I was at work.

Therefore, the results of the survey show that not only were there few differences between cultural groups on their responses to these questions, but that Aboriginal mothers, in general, indicated that they practiced Western language facilitation techniques more often than the Western mothers reported.

Aboriginal caregivers may have been familiar with these strategies and techniques through education programs, such as the Northwest Literacy (NWT) Council (2007). Other opportunities for education may be in the form of youth retreats for young mothers, health fairs in the community, or information received from the Nursing Station. Media relating to this topic (TV advertisements for language learning toys, children's programming such as Treehouse) may also have indirectly made caregivers aware of language learning techniques.

Dual language learning requires a frequent, structured approach to language facilitation. This message comes through in the Dene language classroom as well. For example, since the administration of the survey, I have noted specific language facilitation techniques posted in the Dene language classroom. The NWT Council (2007) encourages use of native languages with slogans such as "Share your

language, Share your culture". Some of the many language-based activities that are promoted in the Aboriginal Literacy Cards (NWT Council, 2007) include: Speak, Read, Play, Sing, Repeat, and Model, which is very similar to Western practices of language facilitation. In fact, this resource makes reference to adapting their materials from Western sources. To further demonstrate the similarities in language facilitation practices, under the heading of "Teach", the literacy card reads, "Teach your children one new word everyday in your language. This helps them expand their vocabulary".

In completing this study, I became more educated in regards to the extent the Dene language is thriving in the homes of these mothers and within the community. Dene language use was revealed through the survey data. Consultation with the cultural informants and the research assistant also confirmed the frequency of Dene spoken in the home. This type of dialogue highlighted bilingualism, community dialect and dual language learning as being strong contributors to how the children in Lac Brochet learn language. Although I was aware of Dene being the first language in this community, I did not know the extent that the mothers focused on dual language learning or what their beliefs were on their children being bilingual speakers. This became an important finding in my study.

Bilingualism

Bilingualism and dialectical differences require some recognition for the roles they play in caregiver-child linguistic interaction patterns and child rearing. For this reason, SLPs and educators may reconsider how they view Aboriginal children's communication competence. Bilingualism needs to be considered when interpreting the survey responses. The preschool children in Lac Brochet speak Dene as their first language. Only after beginning *Head Start* do they really embark on their journey towards bilingualism. However, some children may not achieve the goal of balanced bilingualism, and may instead be weak in both languages and subsequently labelled "English as a second dialect speaker" (Daigneault-Hammersmith, Tavares, Mercredi, & Settee, 2007). In this case, there are

English as an additional language (EAL) programs to support these children. The following paragraphs provide some insight as to how a bilingual child's acquisition of languages may be affected and what this means for language specialists and educators serving Aboriginal children.

As Paneque (2006) pointed out, misconceptions regarding bilingualism are likely the products of both ignorance (on the part of the professional) and the scarcity of bilingual therapists to serve this bilingual populace. In Manitoba, we are fortunate to have three bilingual SLPs serving the First Nations communities; however, Dene is not one of the Aboriginal languages spoken by any of the clinicians, highlighting the linguistic diversity among Aboriginal groups. Regardless of this diversity, as noted earlier, there are similar discourse patterns and linguistic units that are common throughout Aboriginal languages. Clinicians who are Aboriginal language speakers should have a heightened awareness of the dialectical differences and subsequently treat them accordingly, that is, as differences and not delays.

Familiarization with the dialect and culture of the community is critical to providing ethical and professional service to its members (Ball et al. 2006; Garcia, 2005; Genesse et. al, 2004; Parke, Drury, Kenner & Robertson, 2002; Westby & Vining, 2002). A dialect can be described as a regional or social variety of a language that is comprised of different vocabularies, phonology, and syntax. A standard dialect is not superior over other varieties of the language. It is the dialect of the dominant culture or group, and therefore may be viewed by some as superior. Normally, a child who learns the standard dialect at home (as their first language) transitions into the school's language system with little difficulty. Conversely, the child whose home language is not standard dialect, and who then tries to acculturate into the classroom, may quickly realize that the language use at home is different from the language use of the classroom. This often becomes the case for Aboriginal children growing up in a FN community (Peltier, 2008). Not only do the children quite often feel uncomfortable using their language or household dialect (Kennedy, 2006), they are quite often perceived as having

inadequate or delayed language abilities by both non-Aboriginal and Aboriginal educators.

Equally important to the education of bilingual therapists, educators, and specialists serving FN communities is the education of the parents of these children. Years of oppression, along with the efforts to eradicate native languages through the use of residential schools, have taken their toll on Aboriginal languages. There is a strong need to reverse these actions by promoting bilingualism, both in the schools and the homes of FN children. Education that is directed to parents is one way to advocate for native language use and bilingualism. Although there is evidence of education programs directed towards parenting skills and language development in Lac Brochet, I have not witnessed any pro-active talk on the importance of dual language learning. Lac Brochet is fortunate to have a Dene language teacher, whose classes are brief and occur every second day. Dene may be spoken simply because of the fear of losing the language. It may also be hindered by misconceptions regarding the acquisition of two languages. For instance, earlier studies such as one by Macumara (1966) suggest that children learning a second language perform poorly in intelligence testing. There were methodological concerns about such studies, and consequently, studies such as Kessler and Quinn (1987), Cummins (2000) and Oller and Eilers (2002) helped to dispel this myth. Oller and Eilers, after controlling for socio-economic status and bilingual education program quality, showed that bilingual students performed at the same level as monolingual students on certain tests of intelligence. Bilingualism does not cause language delays. It is important that all Aboriginal mothers understand this.

Negative implications of learning a second language do exist, especially in the earlier years. Cummins and Battle (2002) are strong supporters of the belief that for a child to become a fluent speaker of both languages, mastery of the native language is imperative. Whether monolingual or bilingual, a child uses specific strategies to obtain the language (Ervin-Tripp, 1974; Krashen, 1983; McLaughlin, 1985; Whitehurst, 1978). Initially the child might use imitation and repetition. Within these initial stages, Krashen describes the errors occurring

in a natural order and views them as more creative and independent of the child's first language. A conscious learning of the language appears later on, when the speaker has learned the structural rules and has time to apply those rules in certain social contexts. The point here is that, as in the case with young Aboriginal children, errors will evidently occur. Although the literature on bilingual language acquisition is scant, we know young monolinguals need to play around with the language somewhat before acquiring the skill to speak it fluently. Common linguistic errors include overgeneralization, production simplification, and loss of sentence medial items. The same is likely true of bilinguals.

Other External Factors Affecting Language Acquisition

Mother and child interaction in the early years of a child's life plays a very strong role in language acquisition. Western-based language studies (Fewell & Deutscher, 2004; Hart & Risley, 1995; Rush, 1999; Schacter, 1979; Snow, Dubber, & De Blauw, 1982; Tough, 1977; Vernon-Feagans, Hurley, Yont, Wamboldt, & Kolak; 2007) revealed how participation in dialogue is crucial to attainment of sophisticated language forms or higher functions of language. Tough distinguished between different speaking patterns in the homes of children in terms of talking *with* the child versus talking *to* the child. These are very distinct, as talking *with* the child engages the child in comprehending forms of language discourse and giving responses, while talking *to* the child is a very passive act on the part of the child and his or her contribution to learning the language.

Schacter completed a comprehensive study that looked at socio-economic status and race, and how these two elements might affect a child's language acquisition skills. In this study, Schacter found differences in how language was learned by the mothers in the two groups when the mothers' socio-economic status differed, but not between mothers who differed only by race. The study showed that socio-economic status was correlated with language development in that there were differences between advantaged and disadvantaged groups. The authors attributed this difference to socio-economic status in that the mothers did not have the time,

education, or commitment to know and understand the importance in engaging their children in discourse at a young age.

Hart and Risley (1995) felt that the first three years of life were the most important in terms of establishing vocabulary, style of interaction, and discourse patterns. These authors proposed that listening to a three-year-old child's speech should remind one of one's own speech in terms of patterns of discourse, prosody, and certain components of structure. Fewell and Deutscher's (2004) study explored the contributions of four variables (child's expressive language scores at 30 months, mother's language facilitation techniques, mother's education, and group assignment) to the predicted IQ at the age of 3. As with Fewell and Deutscher study, Bennett, Weigel and Martin (2002) found that a mother's level of education accounted for a great amount of variance within language acquisition models.

There are some generalizations made within the dominant culture regarding language acquisition. For example, the Westerners view of the interaction that occurs between mother and child is that it is mainly verbal. Tough (1977) felt that the dialogue that takes place between an adult and child, where the act of turn-taking occurs, is crucial in the development of cognitive-linguistic abilities. In Tough's study, results indicated that a mothers' response to their children's communication attempts is highly related to social class and that lack of responsiveness of maternal speech negatively affects the child's language skills. More recent research by Fewell and Deutscher (2002; 2004) and Rush (1999) documented the same. Rush (1999) and Vernon-Feagans et al. (2007) studied children in childcare to see whether the amount caregiver-child interactions influenced language skills. Both studies reported a strong correlation between the rate of interactions between caregiver and child and measures of language competence of the young children.

There are researchers, educators, and clinicians, who may disagree with the idea that Aboriginal mothers practice language facilitation techniques at a similar pace and style as Western mothers do. The ethnographic studies completed in the 1980's by Scollon and Scollon (1981:1984), Crago (1990 a; b), and Philips (1984) on Aboriginal groups across North

America documented clear differences in these groups compared to mothers of Western-European descent, in terms of different styles of linguistic interaction and patterns of discourse. S. Peltier, an Aboriginal speech-language pathologist working in the Great Lakes region of Ontario states "Aboriginal parenting practices are quite different from those of Western European cultures" (p. 14, 2008). There are other reasons as to why the results from this study may not be unanimously accepted. Some may believe that the Aboriginal mothers were not answering the questions truthfully, perhaps having some reservations of expressing their true feelings towards facilitation of language and skewing their answers to instead reflect a more Western type of response. These reservations may be deep rooted in their existence. As Peltier (2008) stated "Aboriginal people are in a process of recovery from the residential school legacy and if directly questioned about use of the Aboriginal language, they may feel threatened." (p. 12). Some others may refute the argument of Aboriginal mothers practicing language facilitation practices often with their children because of determining the survey tool as invalid or unreliable.

The above arguments against the claim of Aboriginal mothers' frequent use of language facilitation practices can be counter argued on the basis of using Indigenous methodology in the current study's design. Using cultural informants from the community, of various ages and backgrounds, helped in the interpretation of the results and assurance that the answers were viewed in an unbiased manner. More importantly, having the research assistant serving as a member of the community and an informant, greatly assisted me in the interpretation of the mothers' responses. The question of the mothers' honesty in responding to the survey was addressed to the research assistant. She seemed a bit confused as to why I would ask such as question and answered with the statement "Why would they lie to me, they know me". Incorporating Indigenous methodology (allowing the different means of survey administration, as well as different languages in the administration process) weakened the study's rigor, from a Western point of view. However, the study would ultimately be regarded as distasteful by

Aboriginal and non-Aboriginal researchers if these methods were not incorporated into the study.

Summary and Conclusion

While personally reflecting back on this study, the results that surfaced were surprising in many ways. I saw the importance of using Indigenous methodology and participatory research both in terms of achieving the least biased results, but also in terms of giving something back to the community that was valued and worthwhile. I needed to report on these women's views of language acquisition as stated through the survey's responses. The fact that the survey was not able to display a great amount of variation between Western mothers' responses and the Aboriginal responses was revealing in comparison to similar cross-cultural studies with other cultural groups. Even more relevant was the way in which the Aboriginal mothers answered the frequency of practice survey items. This finding has clinical implications on how SLPs consult with school staff and parents regarding the practice of promoting language use with their children. The topic of dual language learning deserves special attention in regards to the Dene mothers' heightened awareness of language facilitation methods.

Ball and Lewis (2005) completed a study in which FN Elders across Canada were interviewed regarding their views of language development and preservation of their native language. Regardless of the first language preference, dual language learning was seen an important goal to incorporate in rearing their children. This study was also paramount in describing FN Elders and parents as having views and practices that resemble non-Aboriginal parents, and further emphasized the need to facilitate their children's language development. Of greater interest to SLPs was how the Elders described language-learning techniques as being very similar to Western ways. As cited in Ball and Lewis' study, Elders and parents pointed out "the need for adults to actively engage children in dialogue, promote talkativeness, and provide specific language stimulation and feedback" and "Elders saw the value in early childhood programs and in speech-language services, while emphasizing the

primary roles of parents and other primary caregivers in home and community settings in facilitating early language development.” (p. 8). This study stands alone from the studies which took place in the 1980s and 90s and cited in this paper, in that it touched on Aboriginal mothers' views of language development with specific mention of practices which are similar to Western mothers. SLPs have displayed more and more interest in completing fair language assessments and establishing appropriate treatment programs for FN children. As Peltier mentions “Speech and language services are being established in more and more FN communities and Aboriginal people themselves are entering the profession” (2008, p. 8). This fact holds promise in the education of professionals working in FN communities, to become more aware of the cultural ways and languages within the communities, enabling them to provide the least biased services possible. Respecting the use of Aboriginal English dialects and Aboriginal native languages is imperative. Knowing Aboriginal mothers are aware and active in language facilitation, regardless of the language preference, is encouraging for speech language pathologists.

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Appendix A

Survey

Thank you for your consent to complete this survey with you. You have the option for this survey to be read to you in English or Dene. We are doing this survey to educate ourselves on how your children learn language. There are many different ways that adults and children talk and play together. We want to find out about how the caregivers in your community talk and play with their children It is important for us to understand this so that we can assess your children's language in a fair way, and offer appropriate suggestions to you if your child is having trouble learning language or how to speak. There are no right or wrong answers. The format of the survey is such that you will be asked to choose a

number from 1-5 that shows how much you agree with the statement.

For example:

It is important that your child eats breakfast every day
Disagree 1 2 3 4 5 Agree

If you strongly disagree with this statement you would answer 1

If you agree with this statement, but not overly agree, you would tell me 4.

If you really have no preference one way or the other, you would answer with 3

When answering these questions, try to think about your children who are in the range of 3-5 years of age or in pre-school.

1. My child spends much of the day playing outside.
Disagree 1 2 3 4 5 Agree

2. My child spends much of the day inside with books and toys (blocks, trucks, play-dough, coloring books, etc.).
Disagree 1 2 3 4 5 Agree

3. I would like to be taught how to help my child to understand and say more words.
Disagree 1 2 3 4 5 Agree

4. I would be concerned if my 4-year old child was not speaking in Nursery/Headstart.
Disagree 1 2 3 4 5 Agree

5. A lot of ear infections may change how a child speaks.
Disagree 1 2 3 4 5 Agree

6. I feel comfortable copying my child's play on the floor (E.g. They are playing with blocks and you go down and play with the blocks too).
Disagree 1 2 3 4 5 Agree

7. It is Ok for my child to not respond to me right after I ask a question.
Disagree 1 2 3 4 5 Agree

8. My child can easily sit and listen to a story without picture books.
Disagree 1 2 3 4 5 Agree

9. My child's brothers and sisters teach him/her new language as much as I do.
Disagree 1 2 3 4 5 Agree

10. My child's connection to spirituality is important to me.

Disagree 1 2 3 4 5 Agree

11. My child will easily talk to an older person (who they know) if given a chance.
Disagree 1 2 3 4 5 Agree

12. My 4-5 year old should attend Nursery/Kindergarten 3-5 days a week.
Disagree 1 2 3 4 5 Agree

13. When I tell my child a story, it is usually for a purpose (example: teaching).
Disagree 1 2 3 4 5 Agree

14. Children learn best by doing (provided they are out of danger), for example, how to make toast.
Disagree 1 2 3 4 5 Agree

15. Parents should ask young children to repeat new words in order to help them learn to talk.
Disagree 1 2 3 4 5 Agree

16. Children understand some words even before they can speak.
Disagree 1 2 3 4 5 Agree

17. Speech is especially important because it helps young children to make friends.
Disagree 1 2 3 4 5 Agree

18. If parents use 'baby talk' (like wawa for water, or 'jamies' for pajamas) their child won't learn to speak well.
Disagree 1 2 3 4 5 Agree

19. Three year olds are too young to help with household chores.
Disagree 1 2 3 4 5 Agree

20. Young children learn best when they are given instructions.
Disagree 1 2 3 4 5 Agree

21. Young children should always be encouraged to communicate with words rather than gestures.
Disagree 1 2 3 4 5 Agree

22. Young children learn important things while playing.
Disagree 1 2 3 4 5 Agree

23. Young children should be allowed to take a turn in conversations that include adults who are not family members.
Disagree 1 2 3 4 5 Agree

24. Grandparents or older family members give good

advice about the way that young children grow up.
Disagree 1 2 3 4 5 Agree

The following 12 questions will be answered in terms of how often these practices occur. For example, whether or not it always happens or never happens. You will choose the number according to how often it occurs:

Hardly ever Sometimes Very often Almost always
1 2 3 4

25. Tell my child if s/he uses the wrong word.
Hardly ever Sometimes Very often Almost always
1 2 3 4

26. Read a book to my child at bedtime or naptime.
Hardly ever Sometimes Very often Almost always
1 2 3 4

27. Ignore the fact that I do not understand something my child says.
Hardly ever Sometimes Very often Almost always
1 2 3 4

28. Follow along with my child's topic of conversation.
Hardly ever Sometimes Very often Almost always
1 2 3 4

29. Repeat what my child says, adding new words.
Hardly ever Sometimes Very often Almost always
1 2 3 4

30. Talk about what is going on when my child and I are playing or doing things together. Example: When playing tea party, "Now, I'm pouring my tea. You're eating a tea cake. Is it good?"
Hardly ever Sometimes Very often Almost always
1 2 3 4

31. Tell my child if s/he leaves some words out of a sentence.
Hardly ever Sometimes Very often Almost always
1 2 3 4

32. Change my words or sentence when my child does not understand me.
Hardly ever Sometimes Very often Almost always
1 2 3 4

33. Talk with my child about what happened that day when I wasn't there. Example: at preschool, or at home while I was at work.
Hardly ever Sometimes Very often Almost always
1 2 3 4

34. Use picture books or flash cards to teach my child new words.
Hardly ever Sometimes Very often Almost always
1 2 3 4

35. Ask my child to repeat a sentence after me.
Hardly ever Sometimes Very often Almost always
1 2 3 4

36. Ask my child to tell another family member about something that we did together.
Hardly ever Sometimes Very often Almost always
1 2 3 4

COMMENT SECTION

Sometimes surveys do not allow you to explain yourself well enough. Please use this page to expand on certain issues that are important to you and your child's language/culture.

Thank-you!

.....
: "All of this has called into being a new world. I have referred to it elsewhere as a peek-a-boo :
: world, where now this event, now that, pops into view for a moment, then vanishes again. It is an :
: improbable world. It is a world in which the idea of human progress, as Bacon expressed it, has :
: been replaced by the idea of technological progress. The aim is not to reduce ignorance, supersti- :
: tion, and suffering but to accommodate ourselves to the requirements of new technologies. We :
: tell ourselves, of course, that such accommodations will lead to a better life, but that is only the :
: rhetorical residue of a vanishing technocracy. We are a culture consuming ourselves with informa- :
: tion, and many of us do not even wonder how to control the process. We proceed under the as- :
: sumption that information is our friend, believing that cultures may suffer grievously, from a lack of :
: information, which, of course, they do. It is now only beginning to be understood that cultures may :
: also suffer grievously from information glut, information without meaning, information without con- :
: trol mechanisms."
: (From *Technology* by Neil Postman, 1992).
:

What Inuit Middle-Years Students Say About Their Learning

- Brian Lewthwaite and Barbara McMillan, University of Manitoba

Abstract

This study investigates Nunavut Inuit Middle Years (Grades 5-8) students' perceptions of academic success and the classroom pedagogical and interactive processes influencing their success. Students and, to a lesser extent their teachers, identify a variety of pedagogical and interactive processes that influence student success and their learning, in particular in science classrooms. Of significance is the importance students place on teachers that care not only for them as people, but also for their performance as learners. Based upon this information presented by students, a profile of what constitutes the characteristics of an effective teacher in promoting learning within a positive learning environment in Inuit schools is presented.

Culturally Responsive Teaching

This research is informed by the ideas and explanations of *cultural responsive teaching*, which is defined as using the cultural knowledge, prior experiences, frames of reference, and performance styles of students to make learning encounters more relevant to and effective for them (Gay, 2000). Although several studies have focused on the identification of the critical elements of instruction influencing the school success of Aboriginal students (for example, Kleinfeld, McDiarmid, & Hagstrom, 1995), few have focused on grounding the studies in the voice of Aboriginal students themselves and their Aboriginal educators. This study is based on students' ability to identify and communicate their understanding of factors influencing their learning. This authority is then used to question the protocols of the mainstream classroom and, in response, promote a dynamic and synergistic relationship between home and community culture and school culture (Ladson-Billings, 1995). As suggested by Gay (2000), culturally responsive teachers respond to the cultural knowledge, prior experiences and performance and learning styles of students to make learning more appropriate and effective for them. They teach to

and through the strength of their students.

Context of the Study and Methodology

Over the past three years, the University of Manitoba's Centre for Youth, Science Teaching and Learning (CRYSTAL) has been working with three northern Canadian Qikiqtani (Baffin Island) school communities to assist these schools in achieving their aspirations for science education, aspirations grounded in a desire to see their culture affirmed in the school science experience provided for their children. It was anticipated that the learning experiences currently provided for students and through the CRYSTAL efforts, would help identify the classroom-based pedagogical processes that influence students' perceptions of their own school success. This outcome is the focus of this paper. The question being addressed is: what do the students and teachers of these students identify as the pedagogical processes that influence Inuit students' perceptions of their own school success?

The domain of culturally responsive pedagogy previously mentioned has provided a foundation for both the research questions and methodology central to this study. That is, what do Inuit students perceive as the teacher specific and learning environment characteristics and processes that contribute to their success? In answering this question, a variety of data sources have been employed in order to triangulate data and increase reliability and validity of results (Bogden and Bilken, 1998). These sources of student data include (1) completion of a questionnaire in English or Inuktitut by a total of 36 Grade 5-8 students in two of the communities, (2) individual interviews with 24 Grade 7 and 8 students in three communities, and (3) group interviews with 39 students from three Grade 7 and 8 classes from three communities. In both the questionnaire and interviews, the questions that were asked focused on students identifying (1) the last time they felt they had been successful in school, (2) what the teacher does to help them to learn, (3) what is happening in their classroom when they

are learning best, and (4) what they would change about their teacher's teaching or what is happening in their classroom to assist them in their learning.

As well, six teachers (2 Inuit, 1 First Nations, 1 Indo-Canadian, 2 Caucasian), who were identified by their teaching peers, principals and CRYSTAL researchers as successful classroom teachers in regards to creating positive learning environments, were observed repeatedly during three CRYSTAL researcher visits to the schools. Furthermore, eight teachers (6 being non-Inuit) who were completing their teaching term were interviewed and asked to consider teacher, student and classroom characteristics that promoted the creation of positive learning environments and facilitated engagement and learning.

Finally, in two schools, results of the interviews with students were shared with teachers at a staff meeting, and teachers were asked to respond to students' comments on teacher behaviors that influenced their learning. As suggested by Bishop (1996), in all cases, the formal interview was more of a conversation; the informal interview was a chat based upon the need for collaboration between researchers and researched in constructing the final story as evidenced in the vignettes and themes that follow.

Results and Discussion

The primary focus of the CRYSTAL conversations was to try to elucidate the pedagogical practices that influenced students' learning. The following behaviors were consistently identified by students and teachers. They are not presented in a priority list.

The Importance of First Language Use and Effective Oral Communication

It is not surprising that most students and teachers were in classrooms where students' first language is Inuktitut; because teachers are not of the majority language and are unable to communicate in students' first language, effective oral communication was deemed a major factor influencing student learning. Similar to Kanu's findings (2002), effective teachers are able to communicate clearly to students or use strategies to explain, even if it requires others' assistance. Clear communication typically was

considered to be manifest in simple, uncomplicated expectations that were often accompanied by visual representations or modeling. Within the context of science, one comment was specific to this characteristic.

She shows us what to do rather than just telling us. The words are there but when the words are with the thing we do it makes sense. She doesn't go on and on.
(Esther)

Similarly, students were able to recognize the influence of this language barrier as a frustration in their learning.

I can learn but when there's no Inuktitut I don't learn well. [Another student in the class] will help us to learn our way [in Inuktitut] so you don't feel like you are not smart. Sometimes you learn by seeing [the teacher do it]. Sometimes you have to hear it to learn. (Freda)

The Importance of Multiple Instructional Strategies

Associated with the previous point is the importance of teachers using multiple instructional strategies to support student learning. It is probable that the most common statement by teachers and students was associated with how they tried to communicate ideas, especially when the learning was associated with abstract ideas. Students commonly referred to learning through an instructional sequence that involved the teacher first modeling, often repeatedly ensuring students visualized what was required to be learned. The classroom observations of effective teachers often revealed this modeling was done in silence and then, second time around, with a limited verbal account of the procedure or explanation. Following this, teachers would then provide opportunity for students to independently provide an explanation or carry out a task and if necessary, seek teacher help or the help of a peer. For example, one student made this comment on how a string telephone worked:

We had done it [made the telephone] but didn't know how it worked. She showed the picture of the things moving [vibration] and how the sound travels.

We did the acting [role play] and you could see how the sound goes through [the string]. She made us draw this our own way and I could explain it to [another student in Inuktitut]. (Simon)

It is quite evident that tangible visual representations such as modeling support abstract ideas and are valuable, as is the opportunity for students to hear and provide explanations in their first-language. Most importantly, multiple approaches to assist students in their learning were most commonly cited as ingredients for fostering learning.

The Importance of Allowing Time and Initial Support for Completion and Mastery

Since students perceive success to be commonly associated with accomplishing a task through to the end, students commonly stated that an effective teacher provides repeated opportunity and the time necessary for students to work through to end. Where students faced difficulty, teachers were able to provide initial support in order to alleviate possible frustration and instead boost initial confidence. As one Inuit teacher suggests:

You can't do it for them, but they must have some initial success and persevere. We worry about students that are too depending on us, but that can't change overnight. Once they see more success in themselves they are willing to do more on their own. It's like blooming – if we feed them encouragement through their little successes it gets better. (Tuqqassie)

This comment was affirmed by several students. For example:

She'll [non-Inuit teacher] show us how to do it. Many times she'll show us. Then we try. She'll help us or we help each other. It will take time. She makes us do it on our own but first she will show us how. She can explain but showing me is [more] better. She can go away then. (Tanner)

The Importance of Providing Individual Attention to Support Learning

Building upon previous comments, students repeatedly made mention of the importance of someone, usually teachers being near students

and observing them completing tasks with repeated assurances that they were doing something properly. These comments were typically associated with mathematics where students were asked to complete something on their own. When asked about their most recent examples of success, students often referred to completing numeracy or literacy-related tasks. Students often required some form of temporary framework or scaffolding, at least until they were able to develop the skills to learn independently. Repeatedly, classroom observations showed that these effective teachers or peers were supportive of other's learning through provision of direct guidance and assurance.

In math we mainly work alone or groups after she has shown us how to do it. I like it when she shows us first and then helps us as I need help. You can get mad when it doesn't work, or you just want to stop, but she can be there to help. (Wayne)

The Importance of Local Contexts and Resources

Consistent with the community's aspirations for science education, students repeatedly responded positively to teachers and their inclusion of the local context as examples in their teaching. The underpinning mandate for the CRYSTAL initiative is to honour community aspirations for a two-way learning experience that advocates Inuit cultural knowledge and processes as thoughtful and purposeful (McKinley, 2001) through the development of resources that legitimize local knowledge and processes (Bishop, 1996). As one teacher suggests:

Hearing about people they know immediately evokes response from them. They can relate to the stories and their experiences. There is a significant sense of pride associated with hearing of stories most relevant to their lives. (Elaine)

Strongly embedded within these comments is the imperative importance of seeing the use of local context in supporting student learning. As one non-Inuit teacher suggested:

I had taught in a northern setting before, but here we have culture specialists available in the school to augment our teaching. I'll be

teaching a topic and realize that there are points of view that can be addressed by the elder, so they come in. I get them to talk about a specific thing and it goes so well. [The District Authority Director] said he heard his son [who is in my class] being taught about the weather from both me and the elder and thought that this way of having us both contributing was the ideal for his son. I tend to agree. It means both of us contribute to the learning. (Ian)

Ian himself could see the benefit of students experiencing 'two-way' learning. As well, as a teacher he is seen to be effective by the school community in that he draws upon the local community as a resource in a variety of ways, in particular in the inclusion of community members and their knowledge and skills in contributing to student learning.

The Importance of Reciprocal Learning

Several teachers reported that they found that making provision for students to share their skills, experiences and knowledge in contributing to the classes' learning was a significant strategy in promoting learning and maintaining a positive learning environment. Teachers, especially those who were non-Inuit, emphasized that they quickly realized that encouraging students to help each other was an important and positive vehicle for promoting learning.

He [our teacher] knows we can all do things [some better than others] and he'll get us to show the others or help each other. [A student's name] helps me in math and I help him with the words. We know we can help each other. He'll get us to help and we don't just need to use him. (Wayne)

The Role of Novel Opportunities

An interesting theme recognized by students was a sense of the unexpected and less orthodox experiences students might be introduced to as a result of their teachers' efforts. This comment was mentioned repeatedly in one schools' conversations and clarified through conversations in a further school.

We sometimes wonder if she's planning something. She always lets us know when

she's proud of us but then she brought a cake. We felt proud. (Rebekah)

Students clearly want a positive learning environment where there is fun, laughter and a sense of anticipation. Embedded within this comment is the suggestion that students see that these novel and unexpected opportunities provided by teachers provides evidence to students that a teacher cares about their progress and is willing to tangibly honor their collective successes.

Summary Implications of the Study: An Effective Teaching Profile for Nunavummiut

As stated earlier, the data collected from these multiple sources provides evidence of some prevalent themes associated with student perceptions of success and teacher-specific and culturally- determined classroom characteristics that influence student learning. Based on the comments made by students and the information collected from teachers and Inuit educators (GNWT, 1996) an effective teaching profile for teachers of Middle Years Inuit students is presented here.

1. Effective teachers communicate to their students that they care about students' educational success and that students can succeed.

They do not dwell on deficits in their students. They communicate that they work to foster success and that they want them to succeed and are committed to fostering students' success. They are willing to enter into conversations about what they can do to foster their students' learning.

2. Effective teachers allow room for the use of students' first language in the classroom.

They respond to how students seek to understand their instructions and develop new strategies and protocols such as using the human resources available to them, including other students and support workers in the classroom to communicate in students' first language.

3. Effective teachers communicate clearly and concisely with their students. Their communication in English is abbreviated and direct.

It simplifies rather than complicates.

4. Effective teachers foster learning by using multiple instructional strategies such as direct instruction and modeling.

They re-consider and change their pedagogical practice in light of how students respond to their teaching

5. Effective teachers allow time and provide individual support to promote student learning.

They develop an awareness of the pace at which their students work and need to complete work satisfactorily and the amount of individual attention they require in their learning.

6. Effective teachers establish reciprocal learning opportunities within their classroom.

They recognize that others can contribute to the overall learning and will promote students to both seek out and provide support for each other in learning as the need arises.

7. Effective teachers use local contexts and resource materials in their teaching.

They do not believe that they are the central figure able to contribute to their students' learning. They attempt to use the local community and the resources within it to support students and their learning. In so doing, they legitimize the knowledge and practices of the community by endorsing it within the classroom, especially through narratives about local people.

8. Effective teachers recognize that they can and must change their teaching to help students learn.

They don't believe that students must learn the teacher's way and that the student-teacher and student-student interactions need to be controlled or defined by the teacher, but instead, see the processes influencing student learning as opportunities to change their teaching to better suit their students. They make adjustments and even transformations to the orthodoxy of their practice to provide for the inclusion of practices reflective of the home culture.

Conclusions

This paper gives consideration to what students identify as the teacher specific characteristics that contribute to their success as

learners. It becomes quite evident that as much as the voices of the respondents contribute to an understanding of student success and the contributors to that success, the narratives paint quite vivid descriptions of teachers who have responded to their students and their backgrounds by adopting pedagogically preferred practices, thus creating positive learning environments. Central to prompting these changes and successes are teachers who have deeply considered what they can do to best support the development of classrooms to foster student success. As one teacher suggests:

If I look back at my first year here and compare it to how I teach after four years, I can see that my students haven't changed from year to year but I have. I want them to know I care about them, but also really care about their learning. I want them to do well and to do it well. I'm not easy on them but I also show I care. My approaches have changed. I try to give each student care and concern and let the class know we need to work together in our learning and that learning is really important. I'm more focused on them, not just what they do. I think they know that and that's why it works.
(Sharon)

At the heart of these changes is a regard by teachers accepting that *they* are the central player in fostering change, by changing their teaching practices so that they more effectively assist students in their learning. Culture-based education *should* and *must* reflect, validate and promote local culture and language. These experiences must be reflected not only in the management and operation of the school but also in the curricula and programs implemented and the *pedagogies* utilized. Such is the nature of culturally responsive teaching, using the cultural knowledge, prior experiences, frames of reference, and performance styles of students to make learning encounters more relevant to and effective for them.

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Are all our Teacher Candidates Equally *Digital Natives*?

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Abstract

The literature presents a generalized view of the current group of students as computer literate and technologically savvy, so integrating technology into any curriculum should not be an issue for this group of students. But are our students all equally *Digital Natives*? Focusing on a generalized view of learners enables a one-size-fits-all approach to teaching. Two separate pilot studies, focused on teacher candidates at Brandon University, looked at the diversity of learners and the implications for teacher education. The findings indicate that collectively, this group of *Digital Natives* has significant areas of strength regarding their use of technology, but also areas of significant weakness.

Introduction

A popular refrain is that a new generation of students is entering our education system. Technologically savvy, instilled with sophisticated technical skills, and having non-traditional learning preferences, they come to university to learn; we are advised that our traditional approach to university education is inadequate. There is concern enough when these *Digital Natives* enter the Faculty of Arts or Faculty of Science, but what happens when they reach our teacher education

programs? These are the students that we will be sending out to teach future generations. What are the implications for teacher education programs?

The current generation of traditional students is known by many names: Echo Boomers, Google Generation, Generation Y and Net-Generation, among others. Having grown up with digital technology, it has become widely accepted that "Net-Geners" are both knowledgeable and comfortable using technology. Prensky (2001) coined the popular descriptor *Digital Natives* for this generation, relegating those born before this time to the status of *Digital Immigrants*. According to Prensky, "students today are all 'native speakers' of the digital language of computers, video games and the internet" (p.1). Prensky also proposes that they "think and process information differently" (p.1) than previous generations. Tapscott (2009) echoes this view, suggesting that having grown up in a digital era, this group assimilated technology, whereas older generations had to accommodate to it. For *Digital Natives*, technology was "just another part of the environment ... as natural as breathing" (p. 18). Thus it is generally assumed that this generation has an almost innate

aptitude with digital technology.

While not discounting the basic definition of the *Digital Natives*, some voice a dissenting view. Singer (2009), a self-proclaimed *digital native* and IT professional, made the observation that “if you define *Digital Natives* as the group of people that grew up using technology, yes, that exists and would be Gen Y. However this is an altogether meaningless term: most of Gen Y are as inept with technology as the older generation” (par. 4).

Studies commissioned by the National School Board Association in the U.S. (2007) and by the British Library (2008) support a number of the attributes assigned to *Digital Natives*. That is, that they are collectively comfortable with technology and use it frequently for many tasks. Yet, both these studies suggest that their use of technology is not always sophisticated in nature. While they use digital technology on a regular basis, it is often used as a social medium, a task Singer (2009) refers to as being popular only because it requires no special skills to use. It is less likely to be used for collaboration or content creation (National School Board, 2007). Another observation was that when searching and evaluating content online, *Digital Natives* often lacked sophistication. Internet researchers of all ages exhibited a skipping and bouncing behaviour as they searched for information, spending little time on any one page (British Library, 2008).

In another study involving faculty and students at three Australian Universities, Kennedy *et al* (2008) concluded that the reality of technology use by students and their teachers was much more complex than that suggested by the *Digital Native* construct. Their study found a substantial diversity in students’ use of technologies and suggested that factors such as role (faculty or student) and gender play a part in the types of technologies used.

So what is the reality: do *Digital Natives* exist? Are our youth as sophisticated and knowledgeable about technology as Prensky and others suggest? Or, as some detractors claim, is this simply a misleading generalization? If the conclusions of Prensky and Tappscott are true, then this has significant implications not only for how we should be teaching, but more significantly, for how we should be preparing our teacher candidates.

Method

Two independent pilot studies were conducted examining teacher candidates’ use of technology. The first study (n = 96) was a correlational study examining teacher candidates’ use of technology compared to their academic background and their cognitive style. The second study (n = 84), based on the Manitoba Education Citizenship and Youth’s ICT Continuum survey instrument, examined teacher candidates’ self-assessment of their computer literacy skills as they related to the use of technology in an educational setting. In both cases, data were collected using a one-time response to a written survey questionnaire.

Our Teacher Candidates: The Demographics

The target groups for both studies consisted of students in the Faculty of Education at Brandon University. Participants in these two pilot studies were all in a post-Baccalaureate program, thus had all completed a minimum of a three-year Bachelor’s degree. Typically, the respondent was female (63%) and single (53%), had been using a computer for 14 years, and the Internet for 10 years. Ninety percent of the students had high speed Internet access at home. The mean age of the participants was 24.5 years (range 20 – 44), with 77% of teacher candidates being born after the introduction of the Macintosh computer (1984) and 94% being Digital Natives (1977).

How Digital were our Teacher Candidates?

Based on the results of a Net Generation Survey, Juco and Mastrodicasa (2007) provide an overview of how today’s students are using technology. Table 1 provides a side-by-side comparison of the characteristics of our teacher education candidates as compared to the *Digital Natives*.

How did our teacher candidates use their computers?

In the *Use of Technology study*, students were asked to rate their use of various applications based on a 4-point scale: frequently (3), occasionally (2), rarely (1), and never (0). The information collected via this study provided a profile of teacher candidates’ main uses of their computers.

Table 1 Characteristics of Digital Natives vs. Our Teacher Candidates

Digital Natives	Our Teacher Candidates
<ul style="list-style-type: none"> • 97% own a computer • 94% own a cell phone • 60% own an 'iPod' • 97% have downloaded music • 49% regularly download music • 76% use instant messaging and/or social networking sites 	<ul style="list-style-type: none"> • 96% own a computer • 94% own a cell phone • 76% own an 'iPod' • 88% have downloaded music • 48% regularly download music • 77% use text messaging/ 77% use social networking sites

Frequently Used Applications

Word Processing	2.95
e-Mail	2.95
Google	2.83
Social Networking Sites	2.60

Occasionally Used Applications

Music - Listening	2.49
Online Banking	2.16
News Feeds	2.12
Music Sharing	2.07
Photography	2.01
YouTube	1.98
Spreadsheets	1.57

Rarely Used Applications

Online Shopping	1.49
Games	1.41
Record Keeping	1.32
Music Videos	1.32
Graphics/Fan Art	1.05
Message Boards	1.04
Blogs & Wikis	0.96
Database management	0.89
Social Sharing Sites	0.76
Fan Fiction	0.61
Movie Production	0.60
Chat Rooms	0.52

Almost Never Used Applications

Skype	0.49
Role Playing Games	0.35
Audio-conferencing	0.26
Online dating	0.05

In completing *the ICT Continuum survey*, teacher candidates responded to sixteen questions about perceptions of their own competencies related to technology. Based on

a 4-point Likert-scale, they rated themselves as either: exemplar (3), accomplished (2), developing (1), or beginning (0).

Exemplar

No items - - -

Accomplished

Operating a computer	2.44
Word processing	2.23
Communicating with e-mail	2.14
Managing files	2.13
Creating digital images	1.96
Finding information	1.96
Analyzing data	1.70
Evaluating information	1.64
Creating multimedia	1.51

Developing

Creating graphics	1.41
Creating video	1.27
Collecting data electronically	1.21
Concept mapping	0.81
Creating web pages	0.77
Modeling with ICT	0.67
Collaborating online (blogs/wikis)	0.60

Beginning

No items - - -

Analysis of the Data

The primary purpose of this investigation was to determine how our teacher candidates—as *Digital Natives*—currently use technology and to ascertain whether there might be any implications for our teacher education program. For example, could we discontinue a required *Technology and Computers for Educators* course from our program of study and instead rely on integrating ICT into the various Methods courses? To this end, the data were further examined to explore what other correlations existed.

The literature has suggested that certain demographic factors (e.g. gender, age, etc) might mask or otherwise influence students' use of technology. A Pearson chi-square (χ^2) or Pearson correlation coefficient (r) was calculated, as appropriate, to determine if any of the demographic factors impacted on teacher candidates' use of technology. Several mitigating factors were found to be significant:

Travel time to class was found to be significant relative to:

- the amount of time they used a phone ($r = 0.358, p = <0.001$).

Age was found to be significant relative to:

- student use of social networking sites ($r = -0.489, p = <0.001$).
- the number of text messages per day ($r = -0.373, p = <0.001$).
- whether they had an iPod ($r = -0.370, p = <0.001$).
- listening to music on a computer ($r = -0.345, p = 0.001$).
- whether they had a cell phone ($r = -0.326, p = 0.001$).
- sharing music via computer ($r = -0.323, p = 0.001$).
- the time per day they used a home computer ($r = .322, p = 0.001$).

The number of dependent children was found to be significant relative to:

- whether the student had a PDA ($r = 0.406, p = <0.001$).
- recording keeping ($r = 0.397, p = <0.001$).
- social networking ($r = -0.363, p = <0.001$).

The number of years of experience on computers was found to be significant relative to:

- Photography ($r = 0.362, p = <0.001$).

Gender:

- Female students were less frequent users of Role Playing Games than were male students ($\chi^2 = 22.99, df = 3, p = <0.001$).

Where there were a sufficient number of students ($n = 10$ or more) with a common declared major and minor from their first degree, majors and minors were analyzed vis-à-vis aspects of computer usage. This revealed some interesting, albeit somewhat weaker correlations. Similar correlations were also found in an analysis of students' cognitive styles:

English major/minors ($n = 29$):

- Students with English major/minors were less likely to use online banking than were other students ($\chi^2 = 21.57, df = 6, p = 0.001$).
- Students with English major/minors spent less time per day using computers for recreational purposes than did other students ($\chi^2 = 54.60, df = 30, p = 0.004$).

Geography major/minors ($n = 26$):

- Students with Geography major/minors were more likely to own a computer than were other students ($\chi^2 = 12.85, df = 2, p = 0.009$).
- Students with Geography major/minors were more likely to use online banking than were other students ($\chi^2 = 12.85, df = 2, p = 0.009$).

Math major/minors ($n = 23$):

- Students with Math major/minors were more likely to play role playing games than were other students ($\chi^2 = 16.99, df = 6, p = 0.009$).

Zoology major/minors ($n = 12$):

- Students with Zoology major/minors were less likely to watch music videos than were other students ($\chi^2 = 17.24, df = 6, p = 0.008$).

Read/write preferences:

- Students with stronger reading preferences were more likely to be *without* high-speed Internet access. ($\chi^2 = 51.13, df = 18, p = <0.001$).

Visual preferences:

- Students with stronger visual preferences were less likely to use message boards *than were* other students ($r = -0.296, p = 0.004$).

Field Independence (Analytical):

- Students with stronger analytical preferences were more likely to use social networking sites *than were* other students ($r = 0.381, p = <0.001$).
- Students with stronger analytical preferences were more likely to engage in movie editing *than were* other students ($r = 0.265, p = 0.01$).

Complexities Found in the Data

A cross tabulation of the data was performed to identify significant interconnections between the computer applications used by teacher candidates and also between the skill areas within teacher candidates' ICT competencies.

Student Use of Technology Study

Based on correlations between other computer applications, the twenty-seven

applications considered in the Use of Technology survey appear to be grouped in three distinct clusters. The first cluster of applications—the three most used applications—demonstrated no statistically significant interconnections at the 0.001 or 0.01 levels with any of the other applications. The second cluster of applications—essentially the *occasionally used* applications—demonstrated numerous significant correlations between applications within this group (Table 2, See the Appendix, p. 58) and highlighted interconnections between students' social networking and music interests and their use of online shopping, online banking, and database management. The third cluster of applications—essentially the *rarely used* applications, those that might be considered for classroom use—demonstrated few statistically significant correlations with any of the other applications.

Information and Communications Technology Study

Similar to the clustering of applications found in the Use of Technology study, the sixteen skill set areas considered in the ICT survey appear to be grouped into two distinct clusters. In the first cluster, the three skill set areas in which students felt most competent demonstrated no statistically significant correlations with any of the other skill set areas in the ICT survey. This cluster included: operating a computer, word processing, and communicating with e-mail. Each of the remaining thirteen skill set areas demonstrated from one to seven statistically significant interconnections with the remaining skill set areas (Table 3, See the Appendix, p. 58).

Discussions and Implications

The mean age of the participants in these two studies was 24.5 years, thus placing our current group of teacher candidates in the mid-range of what Prensky refers to as *Digital Natives*. Likewise, the comparison of characteristics (Table 1) of our target group to Juco and Mastrodicasa's (2007) profile of *Digital Natives* indicates a strong correlation between the two groups. Also observed in the Student Use of Technology study was a significant correlation between age and socialization and between age and mobility, two characteristics

attributed to this digital generation.

Based on the above, our current group of teacher candidates appears to fall well within the *Digital Native* construct. However, of particular interest is that another pattern also emerged when looking at the correlation between age and students' use of technology; **students' use of technology appears to be driven by students' interests in socialization and music**. This last pattern suggests that there are areas for concern vis-à-vis students' use of technology and our teacher education program. While socialization and music *per se* are not an issue, the limited focus on these two aspects indicates a technological deficiency that teacher educators should note.

Teacher Educators' use of Computers

Given the nature of student life, it is perhaps not surprising that the use of word processing and search applications rated highest on students' frequency of use. Likewise, the lower frequency of use for other computer applications may be influenced by the demands of student life—that the nature of assignments dictates the types of computer applications students use, but also that the more time students use computers for study related purposes, the less time they have to use computers for personal interests.

The *ICT Survey*, while not synchronized with the *Student Use of Technology Survey*, suggested a considerable discrepancy between students' use of computer applications and their competencies with those applications. Although the items in the two studies were not identical, four items were similar enough to allow comparisons (Table 4, See Appendix, p. 59). Despite the fact that students used word-processing, e-mail, and search applications most often, they did not appear to consider themselves to be highly accomplished users of those applications. Applications which might be considered for classroom teaching purposes scored low on teacher candidates' frequency of use (rarely used/ never used) and even lower on students' competencies (developing/ beginning), as demonstrated by the comparison of respective scores for Blogs & Wikis.

One of the interesting aspects that became clear was that the use of computer applications

appeared to be divided into three independent groups:

- word-processing, e-mail, and Internet search applications; (*computer applications related to student life*)
- social networking and music interests; (*computer applications related to Digital Native interests*)
- and others. (*computer applications that teacher candidates might be expected to integrate into classroom teaching*)

The first group of applications—the three most used applications—demonstrated no statistically significant interconnections with any of the other applications, nor with any other skill set areas. In an era of multiple intelligences and multimedia documents, this latter aspect is of potential concern as this appears to indicate the use of these applications as stand-alone functions. For example, if teacher candidates see word processing as simply being a glorified typewriter with built in spell-checking and fancy print capabilities, this seems to raise issues with regard to preparing teachers to work with a generation of students who – by Prensky’s and Tapscott’s assertions – are essentially visual learners. This aspect merits further study.

The second group of applications—essentially the *occasionally used* applications—demonstrated significant interconnections between student’s social networking and music interests and their use of online shopping, online banking, and database management. The majority of the applications that rated as *occasionally used* appear to be centered around teacher candidates’ social networking and music interests. This supports the findings of the National School Board Association in the U.S. (2007) and by the British Library (2008) that while *Digital Natives* use digital technology on a regular basis, it is most often in relation of social networking.

Lastly, the third group of applications—essentially those that might be considered for classroom use—fell in the *rarely used* category and fell lowest on teacher candidates’ list of competencies. This seems to be in harmony with Singer’s (2009) assertion that most *Digital Natives* (which include our teacher candidates) are no more technologically competent than previous generations. Teacher candidates’ low level of experience with this particular cluster of

applications and their even lower level of competencies in related skill areas has implications for what assumptions should be made with regard to skills of our teacher candidates. If these candidates are expected to integrate applications into their teaching repertoire, they need a basic level of familiarity with these applications. This suggests not only a need and but also a possible emphasis for the existing *Technology and Computers for Educators* course.

Additionally, the significant interconnections between the skill sets in this category suggest that these applications are not stand-alone applications, but typically used within a larger context. As such, it would seem that in addition to the existing *Technology and Computers for Educators* course, there is a need to further demonstrate these applications within the context of the various subject area methods courses in the teacher education program. Integrating ICT into teaching is a complex skill. Effective implementation requires not only a sound knowledge of what the technology can do, knowledge of content area, and the pedagogical knowledge of various content areas, but also the awareness of the synergies that arise with their interactions (Mishra and Koehler, 2006).

Complexities in the Digital Native Construct

There is a significant amount of literature hyping the attributes and skills of *Digital Natives*, suggesting expertise with all things digital (Oblinger and Oblinger, 2005; Prensky, 2001; Tapscott, 2009). These claims appear to be generalizations based solely on age, yet they are generally supported by the findings of this study as the analysis of the data did find significant age-related correlations. However, one anomaly appeared; it is actually the older students who spent more time per day using computers. Of particular interest is a Pew Internet and American Life (2007) report which indicated that while Wikipedia and YouTube are visited most often by 8-24 year-olds, the content of these sites is mainly produced by 35-54 year-olds.

Another complexity arises with Kennedy *et al’s* (2007) finding that based on the age of users, there was no significant difference in usage of emerging technologies. This is not surprising in that Web 2.0 applications are

actually a post-*Digital Native* phenomena; that people in this age group – by Prensky's own definition – are actually *Digital Immigrants* with regard to these applications. This could perhaps explain the finding in the *Use of Technology* pilot study that, with the exception of social networking, Web 2.0 applications rated low in terms of frequency of use and even lower on the list of competencies. So while the current generation may be more familiar with social networking and music applications than previous generations, to project this familiarity to all aspects of technological literacy is not justified.

Implications of Majors and Minors

Based on the selection of undergraduate majors/minors, the *Use of Technology* pilot study indicated that significant differences exist with regard to which types of computer applications students used. This parallels the claim of Selwyn (2009) that there are significant differences in the use of computers based on academic disciplines.

It is quite understandable that high school English teachers might have different expectations with regard to the integration of ICT than would high school Science teachers. However, it is quite often the case that Manitoba middle-years and early-years teachers teach subject areas outside their majors/minors – and perhaps outside their comfort zone. If, based on students' selection of undergraduate majors/minors, there are significant differences in candidates' experience base and/or attitudes towards computers, then this may have implications for the integration of ICT into the various methods courses for Early-Years and Middle-Years teacher education programs. This question merits further inquiry.

Digital Natives as Active Learners

The *Digital Native* generation is touted as no longer being passive recipients of instruction, but rather active in the role of constructing knowledge. While the participants in *Use of Technology* pilot study spent more daily time on a computer (205 minutes) than their combined time watching T.V and listening to a radio or iPod (150 minutes), this study found that in terms of their use of computers, participants were more frequent users of passive entertainment (e.g. downloading music and watching YouTube) than they were using active Web 2.0 applications such

as Blogs and Wikis. Specifically, applications that might be considered for educational use rated low and fell in the *rarely used / almost never used* category. Likewise, the skill level of our *Digital Native* generation of teacher candidates rated themselves as *developing* or *beginning* in areas where teacher candidates may be expected to use ICT in a classroom (e.g. creating multimedia & video, concept mapping, and collaborating online). Again, this appears to suggest the need for the *Computers and Technology for Educators* course as part of the Teacher Education program of studies. This issue merits further study.

Conclusion

The concept of the 'digital native' is a convenient moniker that adds mystery to the hype surrounding ICT, yet when examining empirical data related to the use of technology, complexities emerge. Few would disagree that digital technology is impacting all areas of society and that some groups within the population are adapting/adopting technology more readily than others. However, to conclude that our current generation of youth (and our current group of teacher candidates in particular) has some natural ability with technology is a sweeping generalization that overlooks significant anomalies within the *Digital Native* construct, a serious error that could have a negative impact on the integration of the ICT into the classroom.

The assumption that our teacher candidates are entering our program with an adequate experiential base upon which to build the necessary ICT pedagogy appears unsubstantiated. While our teacher candidates may be comfortable and adept at using some technology applications such as social networking and music sharing, these are not the Web 2.0 applications talked about when discussing the integration of ICT into classroom practice. Adequate skills in applications useful in creating either dynamic or differentiated learning environments appear lacking. This may well change in the coming years, but, simply put, the current group of teacher candidates appears not to have the requisite foundation upon which to build the necessary ICT pedagogical knowledge that will positively impact on classroom learning.

The two pilot studies discussed in this paper support the findings of similar studies conducted elsewhere; however there is a need for research

targeted specifically at teacher education. There is a need to synchronize the two studies, but also to track changes in teacher candidates' knowledge and experience with ICT over the next few years. Additionally, it would be beneficial to identify technology innovators within the various school divisions served by the Faculty of Education and determine which applications classroom teachers are using—and how. Such studies are needed to enable better understanding and development of sound teacher education programs.

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• “New technologies alter the structure of our interests: the things we think about. They alter the character of our symbols: the things we think with. And they alter the nature of community: the arena in which thoughts develop.... That American Technopoly has now embraced the computer in the same hurried and mindless way it embraced medical technology is undeniable, was perhaps inevitable, and is certainly most unfortunate. This is not to say that the computer is a blight on the symbolic landscape; only that like medical technology, it has usurped powers and enforced mindsets that a fully attentive culture might have wished to deny it.... An examination of ideas embedded in computer technology is worth attempting.”

• (From Technology by Neil Postman, 1992).

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Appendix

Table 2 Interconnections Between Social Networking & Music Interests

	Online Shopping	Social Networking	Music Listening	Music Sharing	Music Videos
Database Management	$r = 0.366$ $p = <0.001$				$r = 0.384$ $p = <0.001$
Online Banking	$r = 0.404$ $p = <0.001$	$r = 0.323$ $p = 0.001$		$r = 0.339$ $p = 0.001$	
Social Networking			$r = 0.319$ $p = 0.002$	$r = 0.400$ $p = <0.001$	$r = 0.347$ $p = 0.001$
YouTube			$r = 0.440$ $p = <0.001$	$r = 0.344$ $p = 0.001$	$r = 0.516$ $p = <0.001$
Music Listening				$r = 0.611$ $p = <0.001$	$r = 0.417$ $p = <0.001$
Online Shopping				$r = 0.304$ $p = 0.003$	$r = 0.292$ $p = 0.004$
Music Sharing					$r = 0.453$ $p = <0.001$

Table 3 Correlations Between ICT Skill Set Areas

	Analyzing data	Evaluating information	Creating multimedia	Creating graphics	Collecting data electronically	Concept mapping	Creating web pages	Collaborating online	Modeling with ICT
Managing files	$r =$ $p =$		0.348 0.001						
Creating digital images	$r = 0.416$ $p = <0.001$			0.370 0.001					
Finding information	$r =$ $p =$	0.422 <0.001	0.355 0.001			0.409 0.001		0.368 0.001	
Analyzing data	$r =$ $p =$			0.440 <0.001		0.346 0.001			
Evaluating information	$r =$ $p =$							0.369 0.001	0.387 <0.001
Creating multimedia	$r =$ $p =$			0.458 <0.001	0.369 0.001	0.481 <0.001	0.400 <0.001	0.412 <0.001	0.409 <0.001
Creating graphics	$r =$ $p =$				0.380 <0.001	0.452 <0.001			
Creating video	$r =$ $p =$				0.407 <0.001	0.374 <0.001	0.382 <0.001		0.382 <0.001
Collecting data electronically	$r =$ $p =$					0.501 <0.001	0.439 <0.001	0.360 0.001	0.507 <0.001
Concept mapping	$r =$ $p =$						0.479 <0.001	0.494 <0.001	0.603 <0.001
Creating web pages	$r =$ $p =$							0.460 <0.001	0.419 <0.001
Collaborating online	$r =$ $p =$								0.459 <0.001

Table 4 Application Use vs. Skill

Computer Application	Frequency of Use	Computer Skill	Skill Proficiency
Word processing	2.95	Word processing	2.23
e-Mail	2.95	Communicating with e-mail	2.14
"Google"	2.83	Finding Information & Evaluating Information	1.96
Blogs & Wikis	0.96	Collaborating Blogs & Wikis	1.64
			0.60

Vers un développement d'une approche mixte comme outil d'enseignement et d'apprentissage en milieu universitaire

Toward the Development of Blended Learning as a Teaching and Learning Tool in Universities

- Jules Rocque, Ph. D., Faculté d'éducation au Collège universitaire de Saint-Boniface

Résumé

La clientèle qui fréquente les établissements d'enseignement postsecondaire à l'heure actuelle est issue d'une génération où l'information demeure accessible à tous en tout temps grâce aux nouvelles technologies. Les communautés virtuelles se multiplient, le profil des étudiantes et des étudiants change, nous obligeant ainsi à revoir certaines pratiques d'enseignement et d'organisation. Comment offrir plus de flexibilité et enrichir l'enseignement et l'apprentissage? Comment libérer les locaux en raison de manque d'espace dans les établissements? Comment répondre aux besoins de la clientèle qui veut participer davantage à son apprentissage? Le présent article se penche sur ces questions tout en relevant d'autres considérations, notamment l'efficacité, la participation au processus décisionnel, les outils technologiques et les coûts. Après avoir défini certaines notions, nous nous arrêtons sur une expérience limitée d'une approche mixte en milieu universitaire, dans le cadre de la formation initiale de la Faculté d'éducation du Collège universitaire de Saint-Boniface. Nous cédon la parole aux premiers intéressés. Nous constatons qu'il y a encore de nombreux défis à relever pour répondre aux besoins de la clientèle issue de la société mondiale qui se base sur le développement du savoir à l'ère de l'inforoute et des cybercommunautés d'apprentissage.

Contexte

Le présent article s'inspire de deux situations particulières vécues par l'auteur. D'abord, en octobre 2007, l'auteur a participé à

Abstract

The student body currently attending post-secondary institutions has come of age at a time when, thanks to new technologies, information is available to anyone at any time. As virtual communities multiply and the student profile evolves, we are being called upon to reconsider our teaching and organizational practices. How do we offer more flexibility and enrich teaching and learning? How can we free up classroom space in overcrowded institutions? How do we respond to the needs of students who want to play a more active role in their own education? The present article focuses on these questions while raising other considerations about effectiveness, participatory decision-making and technological tools. After defining certain concepts, we examine one limited experience of blended learning at the university level, in the context of an introductory course in the Faculty of Education at Collège universitaire de Saint-Boniface. We let the students have their say. It becomes apparent that we still face numerous challenges in our effort to meet the needs of a clientele born into a globalized society, which is founded on the development of knowledge in the era of the information superhighway and virtual learning communities.

Context

Two specific experiences inspired the present article. First, in October 2007, the author participated in a conference organized by COHERE/

une conférence organisée par COHERE/COHERD¹ qui avait pour thème : l'apprentissage mixte au niveau des études postsecondaires. Certains éléments abordés lors de la conférence seront présentés ci-dessous.

En second lieu, dans le cadre d'un cours de formation initiale, offert en présentiel pendant la session d'hiver 2007-2008, l'auteur a fait appel à une approche mixte (forum de discussion électronique) comme outil d'enseignement et d'apprentissage. Dans un tel contexte, il nous a semblé approprié de présenter quelques résultats obtenus à la suite d'un sondage réalisé auprès des étudiantes et des étudiants afin de mieux connaître leurs impressions quant à leur expérience vécue lors des forums de discussion électronique.

À moins d'être récemment arrivés sur terre, vous savez que la technologie a envahi la vie des citoyens depuis plusieurs années. Que ce soit le téléphone cellulaire qui capte un événement insolite grâce à ses capacités d'images ou de bandes vidéos et dans un clin d'œil l'envoie à une multitude de gens grâce aux sites de réseautage social, genre *You Tube* et *Facebook* ou le baladeur de marque *iPod*, mesurant 44 mm de haut et 8 mm d'épaisseur, plus petit que votre clé de maison, pouvant accueillir jusqu'à 1 000 chansons et qui, par politesse, vous annonce quel morceau est en cours de lecture et qui l'interprète pendant votre marche de santé. Que nous soyons de la génération X, Y ou Z, notre vie, tant sur le plan personnel, professionnel et social a subi et subira encore des transformations importantes en raison de la technologie. Notre façon de faire des choses, de les vivre et de les comprendre change, bref, nos habitudes de vie ne sont plus les mêmes avec l'arrivée des technologies.

Si nous nous arrêtons sur ce point, nous constatons également que les élèves dans nos écoles, tout comme les étudiantes et

CHERCOHERD¹ that focused on the theme of blended learning in post-secondary education. Some of the topics explored during the conference are presented below.

Second, during an introductory course offered in class during the winter 2007-2008 session, the author used a blended learning approach (online forum) as a teaching and learning tool. It thus seemed appropriate to present a few of the results from a survey that was given to students in order to better understand their impressions of their experiences in the online forum.

Unless you have only recently arrived on planet Earth, you are aware that technology has invaded our lives in recent years. One example is the cell phone, which can capture an unusual event using photo or video capabilities and, in the blink of an eye, send it to scores of individuals via social networking sites such as YouTube and Facebook. Another example is the iPod portable music player. Measuring 44 mm long and 8 mm wide, it is smaller than your house key and can store up to 1,000 songs. It politely informs you which song is playing and provides a soundtrack for your daily walk. Whether we belong to Generation X, Y or Z, technology has brought, and will continue to bring about, major transformations to our personal, professional and social lives. Our way of doing, experiencing and understanding things is evolving. Simply put, technology has changed our everyday habits.

Taking a more in-depth look at this, we are also aware that the students in our schools and post-secondary institutions, as well as the personnel who work in these places, are undergoing significant changes in how they learn and teach. As educators, we strive for qualities such as effectiveness, speed, control and flexibility. Our pedagogical tools and approaches must produce the desired results in the given time. The ability to make decisions in accordance with our interests and schedules has become a priority. So, how do we best respond to the clientele that has entered

¹ Canada's Collaboration for Online Higher Education and Research (COHERE)/Centre For Higher Education 1 Research and Development (CHERD). La conférence, intitulée *Strategic Conversations About Blended Learning: Transforming Higher Education* a rassemblé des professeurs et au niveau postsecondaire ainsi que le personnel qui travaillent dans ces établissements subissent chercheurs universitaires canadiens et américains à l'University York le Oct. 12, 2007.

¹ Canada's Collaboration for Online Higher Education and Research (COHERE)/Centre For Higher Education Research and Development (CHERD). The conference, entitled *Strategic Conversations About Blended Learning: Transforming Higher Education* brought together Canadian and American university professors and researchers at York University on October 12, 2007.

étudiants d'importantes transformations tant sur leurs façons d'apprendre que sur les méthodes d'enseignement. Comme enseignant, nous cherchons l'efficacité, la rapidité, le contrôle et la flexibilité, entre autres. Nos outils et nos approches pédagogiques doivent produire les résultats escomptés dans le temps voulu. Pourvoir faire des choix en fonction de nos intérêts et de nos horaires est devenu prioritaire. Alors, comment pouvons-nous mieux répondre à cette clientèle qui envahit le milieu universitaire depuis les 10 à 15 dernières années? Que cherche-t-elle? Quelles transformations de pratiques les institutions vivent-elles (ou auront-elles à vivre) afin de mieux répondre à ces nouveautés? Et les défis, inconvénients et avantages? Voilà quelques questions qui feront l'objet du présent article.

Les auteurs et quelques considérations

Avant de poursuivre sur l'approche mixte en tant que telle, il importe d'étaler quelques points sur les changements qui se produisent dans les établissements d'études postsecondaires. D'abord, la place omniscientiale qu'occupait le professeur, dispensateur ultime de connaissances, monopolisant la parole pendant 60 minutes sans interaction, ou très limitée, avec son auditoire cède de plus en plus sa place à une approche plus collaborative (Garrison et Vaughan, 2008). Les auteurs identifient l'arrivée communications électroniques, outils permettant l'échange et l'accès à l'information sur demande de la part de la clientèle étudiante, comme principaux catalyseurs de ces transformations. Grâce à cette ère technologique, les étudiantes et les étudiants se retrouvent souvent en situation de collaboration et de communication, tant au niveau social et personnel que professionnel et pour toutes sortes de raisons (divertissements, projets et travaux de cours, etc.). La clientèle qui occupe les bancs universitaires veut interagir avec son environnement d'apprentissage et n'accepte plus d'être simple spectatrice. De plus, elle est issue d'une société qui lui offre des services personnalisés pour tout : choix d'émissions à la télévision à la carte, accès aux services financiers à l'heure qu'elle le désire, modèles sur mesure pour la construction d'habitations, achats de services en ligne, etc. Elle se présente donc aux institutions postsecondaires

university in the last 10 to 15 years? What does this clientele want? What are institutions doing (or what will they do) to better respond to these new situations? What are the challenges, inconveniences and advantages? These are some of the questions this article explores.

A few considerations

Before examining the blended learning approach itself, it is important to draw attention to the transformations that are occurring in post-secondary institutions. First, the professor's pivotal role as the ultimate dispenser of knowledge, and as the person who monopolized communication for 60 minutes with practically zero interaction with his or her audience, is increasingly giving way to a more collaborative approach (Garrison and Vaughan, 2008). These authors identify the arrival of the Internet and electronic communication technology, tools that enable the student to exchange and access information on demand, as the primary catalysts of these transformations. In this technological era, students often find themselves in collaborative and communicative situations, on social, personal and professional levels, and for a host of reasons (entertainment, school assignments, etc.). The people filling the halls of our universities want to interact with their learning environment; they are no longer content to be simple spectators. Moreover, they are the product of a society that offers personalized choices for everything: on-demand television programs, access to financial services at any time of day or night, custom-built living spaces, online shopping, etc. They enrol in post-secondary institutions with different expectations of educational services. It seems that the traditional services and delivery methods, which have been around since the 70s, 80s and 90s, no longer match the needs of this clientele.

Besides the changing profile of students attending post-secondary institutions, it is also important to recognize that other realities (e.g. budgetary constraints, increased emphasis on research, rising enrolment, etc.) require administrators to explore new ways of serving their clientele, because the amount of time students and professors can spend together is declining. Decision-makers are thus seeking new ways to effectively and efficiently deliver courses and services to this *new* clientele (Garrison and Vaughan,

avec des attentes différentes en matière de services éducatifs. Ainsi, les services traditionnels et ses modes de livraisons offerts depuis les années 70, 80 et 90 ne semblent plus correspondre au besoin de cette clientèle.

En plus du nouveau profil de la clientèle qui fréquente les établissements d'études postsecondaires, il faut aussi reconnaître que d'autres réalités obligent les responsables de ces institutions à explorer d'autres moyens de servir la clientèle : contraintes budgétaires, importance accrue pour la recherche, augmentation des inscriptions, entre autres, faisant en sorte que les heures contact possibles entre étudiants et professeur diminuent. C'est pourquoi, les décideurs cherchent donc de nouveaux moyens pour assurer une efficacité et une efficience dans la livraison des cours et des services à la clientèle (Garrison et Vaughan, 2008). Ainsi, le principal défi et souci des administrateurs se situent souvent au niveau des réductions de coût tout en assurant un service de grande qualité et un produit souple, taillé sur mesure. C'est ce que désire la clientèle de la génération Z.

Le troisième élément à souligner qui contribue aux forces du changement des modes de livraison de cours au niveau universitaire résulte du manque de satisfaction de plus en plus accru de la part de la clientèle par rapport aux méthodes d'enseignement plus traditionnelles : « [...] *traditional methods are unable to address the need for higher-order learning experiences and outcomes demanded of a changing knowledge-and communication-based society* » (Garrison et Vaughan, 2008, p. 145). Les étudiants qui fréquentent les établissements universitaires se présentent en classe prêts à remettre en question certaines pratiques et façons de faire. Ils paient pour une éducation de qualité et veulent participer à la construction de celle-ci. En d'autres termes, si une approche plus collaborative, appuyée de la technologie, peut leur assurer un apprentissage signifiant, de qualité et plus souple, ils sont prêts à explorer d'autres façons de faire. Notons, cependant, qu'il ne s'agit pas de balayer complètement les rencontres en face à face : « *Students want to be actively and collaboratively engaged in relevant learning experiences that have meaning and practical implications. In short, they want face-to-face and online learning experiences that connect them to other students*

2008). Often, the key challenge for administrators is figuring out how to lower costs while guaranteeing high-quality service and a flexible, customized product. This is what the Generation Z clientele is looking for.

The third important element, which contributes to the changing ways in which courses are delivered at the university level, results from the students' growing dissatisfaction with more traditional teaching methods: "[...] *traditional methods are unable to address the need for higher-order learning experiences and outcomes demanded of a changing knowledge- and communication-based society*" (Garrison and Vaughan, 2008, p. 145). University students come to class prepared to call certain practices and methods into question. They pay for quality education and they want to participate in its creation. In other words, if a more collaborative approach, supported by technology, can ensure them meaningful, high-quality and more flexible learning, they are ready to explore these new methods. It should be noted, however, that this does not mean eliminating face-to-face communication altogether: "*Students want to be actively and collaboratively engaged in relevant learning experiences that have meaning and practical implications. In short, they want face-to-face and online learning experiences that connect them to other students and the instructor*" (Garrison and Vaughan, 2008, p. 147).

University administrators must recognize that traditional organizational structures and aspects such as classrooms and their usage, schedules, technological tools, etc., will have to be reconsidered in order to offer a more open approach and a more flexible learning environment, both of which can be experienced outside the four walls of the classroom. Essentially, it is a matter of re-examining our institutional values. Are we seeking to limit knowledge delivery services (the transmission of information) to a single source (the professor who delivers his or her lecture) in a well-defined space, or do we want to create veritable communities of learners who collaborate with their peers, engage in dialogue with their professors and pursue the development of critical thinking skills, while seeking a meaningful and pertinent learning experience, within both shared physical locations (classrooms) and virtual environments (online forums)?

and the instructor » (Garrison et Vaughan, 2008, p. 147).

Les responsables des universités devront reconnaître que certaines structures et dimensions organisationnelles plus traditionnelles, tels les salles de classe et leur usage, les horaires, les outils technologiques, etc. devront être revues afin d'offrir une approche plus ouverte, un espace d'apprentissage plus flexible qui peuvent se créer à l'extérieur des quatre murs de la salle de classe. Essentiellement, il s'agit de réexaminer nos valeurs institutionnelles. Cherchons-nous à nous limiter aux services dispensateurs de connaissances (la transmission des savoirs) en provenance d'une seule source d'information (le professeur qui donne son cours magistral) dans un local bien précis ou désirons-nous créer de véritables communautés d'apprenants qui collaborent avec leurs pairs, entrent en dialogue avec leurs professeurs et poursuivent le développement d'un esprit critique à la recherche d'un apprentissage signifiant et pertinent tant dans des locaux physiques partagés (salle de classe) qu'à l'intérieur d'espaces virtuels (forum de discussion électronique)?

Définitions des termes

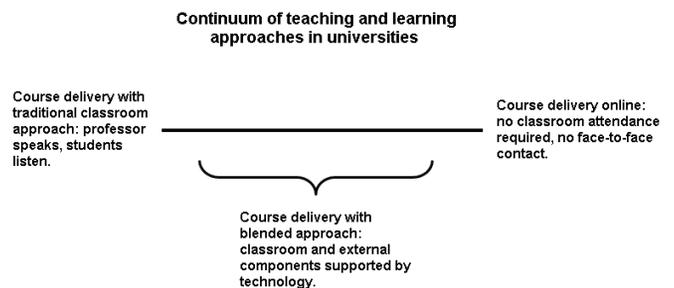
Mais qu'entendons-nous par une approche mixte comme outil d'enseignement et d'apprentissage en milieu universitaire (*blended learning in higher education*) dans le cadre de cet article? Les auteurs ne s'entendent pas nécessairement sur une définition précise de ce qu'est l'approche mixte. L'expression est employée dans une grande variété de contextes et appliquée à toute une gamme de méthodes d'enseignement et d'approches d'apprentissage. Dans un premier temps, disons que l'approche mixte se situe entre les deux pôles du continuum de l'approche d'enseignement et d'apprentissage en milieu universitaire (voir Schéma I ci-dessous). Cela étant dit, voici certains éléments que nous retenons des définitions variées relevées. L'approche mixte se définit comme étant :

- un enseignement en situation face-à-face avec des activités d'apprentissage offertes par voie technologique (Internet, forum électronique, etc.) de façon synchrone (qui se passe en temps réel, de façon

Definitions of terms

What does blended learning in higher education mean in the context of this article? Authors do not necessarily agree on an exact definition of the blended learning approach. The expression is used in a wide variety of contexts and applies to a whole range of teaching methods and learning approaches. First, it is possible to situate blended learning somewhere between the two ends of the university-level teaching and learning spectrum (see Figure I).

Figure I: Teaching and learning approach

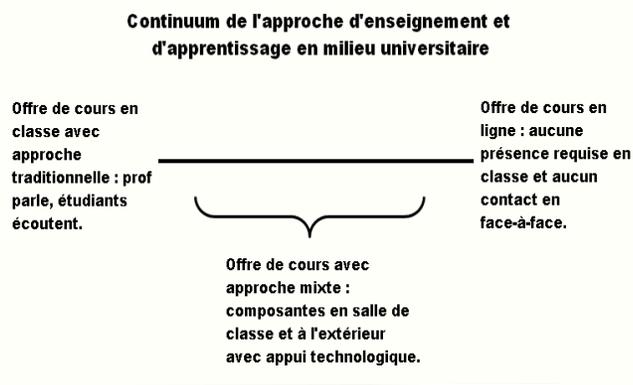


That being said, specific points drawn from various definitions are included here. The blended learning approach is defined as:

- a face-to-face teaching situation with learning activities delivered via technology (Internet, online forum, etc.) in synchronous fashion (in real time, simultaneously) or in asynchronous fashion (not in real time);
- teaching that relies on the Internet in addition to face-to-face classes (the percentage of content delivered online ranges from 30% to 79%) (Allen, Seaman and Garrett, 2007, p. 5);
- teaching that seeks to integrate several elements, including electronic and conventional tools, time (synchronous and asynchronous activities), pedagogy (variety of teaching and learning approaches), curriculum (interdisciplinary, experiential and theoretical), institutions (internal and external), culture (global perspective) and program delivery (specific location, alone or in a group) (Kerr, 2007);
- teaching that includes opportunities for

simultanée) ou de façon asynchrone (qui ne se passe pas en temps réel) ;

Schéma I : Approche d'enseignement/apprentissage



- un enseignement qui fait usage à Internet en plus des classes en face à face (la proportion de contenu livré en ligne variant entre 30 % à 79 %) (Allen, Seaman et Garrett, 2007, p. 5) ;
- un enseignement qui cherche à intégrer plusieurs éléments, dont les outils électroniques et conventionnels, le temps (activités synchrones et asynchrones), la pédagogie (variété d'approches d'enseignement et d'apprentissage), le curriculum (interdisciplinarité, expérientiel et théorique), l'institution (intérieur et extérieur), la culture (perspective mondiale) et la livraison du programme (endroit spécifique, seul ou en groupe) (Kerr, 2007) ;
- un enseignement qui comprend des occasions d'enseignement, d'apprentissage et de communications à la fois en situations face-à-face (à l'oral) et en ligne (à l'écrit) se souciant principalement des forces des deux approches; les principales préoccupations étant l'intégration des deux approches permettant de repenser l'approche traditionnelle d'heures fixes en salle de classe, maximisant l'engagement de l'étudiant en s'appuyant sur la technologie lorsqu'elle enrichit et appuie l'enseignement et l'apprentissage (Garrison et Vaughan, 2008).

Ayant relevé quelques aspects de la définition de l'approche mixte comme outil d'enseignement et d'apprentissage en milieu universitaire, penchons-nous maintenant sur une

teaching, learning and communication in both face-to-face (oral) and online (written) situations, and which is concerned primarily integrating the two approaches using the strengths of each. . This results in a re-thinking of the traditional scheduled, classroom approach, and thus maximizes students' engagement through the use of technology whenever it enriches and supports teaching and learning (Garrison and Vaughan, 2008).

Now that we have identified how the blended learning approach is defined when used as a university-level teaching and learning tool, we will focus on a specific real-world instance in the university setting.

A limited experience

Since 2007, the author has been using a blended learning approach in his teaching in the Faculty of Education at Collège universitaire de Saint-Boniface, at undergraduate and post-graduate levels. For the moment, the experience is limited to the introduction of an online forum, in which students and the professor interact on a wide variety of topics. Either the professor or the students can initiate the discussion, formulate a question based on a reading or a topic raised in class, offer feedback to someone else's comment, etc. To encourage regular student participation, a small percentage of their final grade is attributed to the forum.

As an introduction to this new experience, this information about the online forum was distributed to students:

- **Definition:** "Online forums are natural spaces of written interaction in a network, in which both individual and social learning processes emerge. [...] [They] [...] are communication spaces designed for *informal exchanges*" (Campos, 2004, p. 21).
- **Why participate in the online forum?** It is an opportunity to:
 - contribute to the creation of a learning community network (collaboration);
 - multiply the methods and opportunities for communicating with colleagues (cooperation);
 - engage in individual reflection about a given question;

situation particulière vécue en milieu universitaire.

Une expérience limitée

Depuis 2007, l'auteur utilise une approche mixte dans son enseignement à la Faculté d'éducation au Collège universitaire de Saint-Boniface, tant au premier qu'au deuxième cycle. Pour l'instant l'expérience se limite à l'introduction d'un forum de discussion électronique dans lequel les étudiants et le professeur entrent en interaction sur une grande variété de thèmes. Le professeur tout comme les étudiants peuvent lancer la discussion, formuler une question à partir d'une lecture ou d'un sujet abordé en salle de classe, donner une rétroaction à un commentaire d'un autre, etc. Pour encourager une participation régulière de la part des étudiants, un petit pourcentage de la note finale est attribué au forum.

Pour orienter le groupe à cette nouveauté, certains éléments du forum de discussion ont été remis aux étudiantes et étudiants :

- **Définition** : « Les forums de discussion sont des espaces naturels d'interaction écrite en réseau, dans lesquels émergent des processus d'apprentissage à la fois individuels et sociaux. [...] [Ils] [...] sont des espaces de communication conçus pour des échanges *informels* » (Campos, 2004, p. 21).
- **Pourquoi participer au forum de discussion?** Cela permet de :
 - contribuer à la création d'une communauté d'apprentissage en réseau (collaboration);
 - multiplier les moyens et les occasions de dialoguer avec nos collègues (coopération);
 - privilégier les moments de réflexion individuelle sur une question donnée;
 - soutenir le processus d'apprentissage dans le cadre d'un cours universitaire.
- **Structure et attentes du professeur**
- **Lecture** : le forum peut créer une surcharge d'informations et de travail tout en occupant beaucoup de temps. Pour cette raison, nous vous conseillons de lire les contributions une fois par semaine.
- **Réflexion** : votre participation au forum
 - support the learning process in the context of a university course.
- **Structure and professor's expectations**
 - Reading:** The forum may generate an overload of information and work. It may also be time-consuming. For this reason, we suggest that you read the postings once a week.
 - Reflection:** Your participation in the forum should contribute to a reflective process (for you and the other participants). It should deal with an idea or a topic from the course that has led you to reflect on your environment, your practice or your experience. You may want to ask a question of the whole group or offer a response or feedback to something that was posted or discussed in class.
- **Terms of evaluation:** quantitative and qualitative rules
 - Quality versus quantity:** Regular participation is required throughout the course. You should post a short message (75 to 150 words) once a week, for a total of seven (7) contributions (minimum) over eleven (11) weeks.
 - Variety:** Try to vary your contributions. If you post a reflection one week, follow it with a question or an analysis inspired by a reading or the end of a unit. Post a comment based on a student's PowerPoint presentation, a response to another message, feedback to a presentation, a guest speaker, etc.

What students had to say

After the first year, the author sought the students' opinions by asking them to complete a simple opinion survey in class at the end of the session. Four (4) questions were asked. A compilation of the responses is found below.

The first question sought to determine the overall level of satisfaction with the use of the forum as a teaching and learning tool. Students simply had to select one of the given choices.

devrait contribuer à une démarche réflexive (la vôtre et celle des participantes et des participants). Elle devrait porter sur une idée ou un thème du cours qui vous pousse à réfléchir sur votre milieu, votre pratique et votre expérience. Elle peut vous amener à poser une question à l'ensemble du groupe, à offrir une réponse ou une rétroaction aux propos affichés ou discutés en classe.

- **Modalités d'évaluation** : règles quantitatives et qualitatives
- **Qualité versus quantité** : une participation régulière est exigée tout au long du cours. Veuillez afficher un court message (75 à 150 mots) une fois par semaine pour un total de sept (7) contributions (minimum) sur l'ensemble des onze (11) semaines.
- **Variété** : essayez de varier vos contributions : affichez une réflexion suivie d'une question, une synthèse d'un point à la suite d'une lecture ou à la fin d'un volet; un commentaire à la suite d'une présentation PowerPoint d'une étudiante ou d'un étudiant, une réponse à un autre message, une rétroaction à la présentation d'un invité, etc.

La parole aux étudiantes, étudiants

Après la première année, l'auteur a voulu connaître l'opinion des étudiantes et étudiants en les invitant à remplir un simple sondage d'opinion en salle de classe à la fin de la session. Les étudiants devaient répondre à quatre (4) questions. La compilation de l'ensemble des réponses suit.

La première question cherchait à connaître le niveau de satisfaction générale par rapport à l'utilisation du forum comme outil d'enseignement et d'apprentissage. Les étudiantes et étudiants devaient tout simplement cocher parmi les choix offerts.

Question 1 : Cochez « √ » sous le symbole de votre choix (☺ ± ☹) votre niveau de satisfaction à la suite de l'introduction du forum de discussion comme outil d'enseignement et d'apprentissage.

² ☺ = satisfait ; ± = moyen ; ☹ = insatisfait. Précisons que certains ont choisi entre le ± et le ☹ créant ainsi une 4^e catégorie. Aux fins de l'exercice, le ± et le choix entre le ± et le ☹ ont été regroupés comme étant le même niveau de satisfaction (moyen).

Question 1: Make a checkmark "√" under the symbol of your choice (☺ ± ☹)² to indicate your level of satisfaction following the introduction of the online forum as a teaching and learning tool.

Question 2: I would like to keep ...?

Question 3: I would like to change ...?

Question 4: Other comments, suggestions, questions ...?

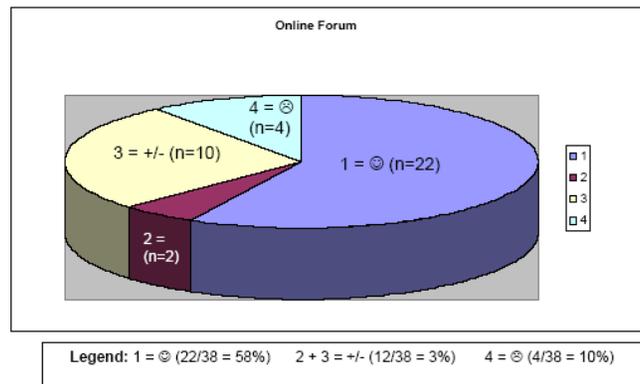
The compiled data³ for each of the questions are found below.

Question 1: Make a checkmark "√" under the symbol of your choice (☺ ± ☹)⁴ to indicate your level of satisfaction following the introduction of the online forum as a teaching and learning tool.

Figure II below indicates the students' overall level of satisfaction. In all, 38 responses were received and divided among four (4) levels of satisfaction:

- 22/38 (58%) of respondents reported being satisfied by the experience;

Figure II: Level of satisfaction



² ☺ = satisfactory; ± = fair; ☹ = unsatisfactory. It should be mentioned that some students made a selection between ± and ☹, which created a 4th category. For the purposes of this exercise, ± and a selection between ± and ☹ were considered to be the same level of satisfaction (fair).

³ It should be mentioned that many comments were gathered for questions 2, 3 and 4. However, only those that related to the forum were transcribed here for the purposes of this article.

⁴ ☺ = satisfactory; ± = fair; ☹ = unsatisfactory. It should be mentioned that some students made a selection between ± and ☺, which created a 4th category. For the purposes of this exercise, ± and a selection between ± and ☹ were considered to be the same level of satisfaction (fair).

Question 2 : Je souhaiterais maintenir ... ?

Question 3 : Je souhaiterais changer ... ?

Question 4 : Autres commentaires, suggestions, questions ... ?

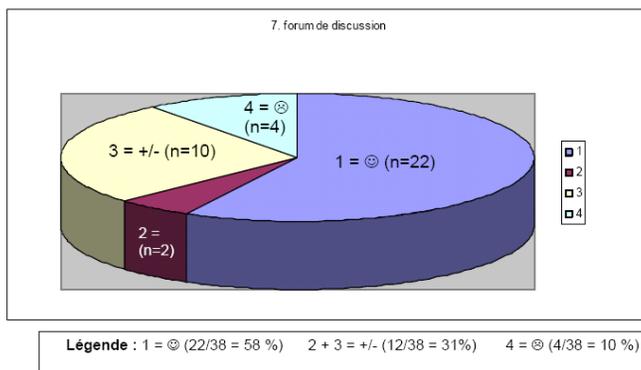
La compilation des données³ suit pour chacune des questions.

Question 1 : Cochez « √ » sous le symbole de votre choix (☺ ± ☹⁴) votre niveau de satisfaction à la suite de l'introduction du forum de discussion comme outil d'enseignement et d'apprentissage.

Le schéma II ci-dessous nous permet de constater le niveau de satisfaction générale des étudiantes et des étudiants. En tout, 38 réponses ont été reçues réparties parmi quatre (4) niveaux de satisfaction :

- 22/38 (58 %) des répondants disent avoir trouvé l'expérience satisfaisante;
- 12/38 (31 %) des répondants disent avoir trouvé l'expérience plus ou moins satisfaisante;
- 4/38 (10 %) des répondants disent avoir trouvé l'expérience insatisfaisante.

Schéma II : Niveau de satisfaction



³ Il faut préciser que plusieurs commentaires ont été recueillis pour les questions 2, 3 et 4, cependant, seuls ceux qui ont rapport au forum ont été retranscrits ici aux fins de l'article.

⁴ ☺= satisfait ; ± = moyen ; ☹ insatisfait. Précisons que certains ont choisi entre le ± et le ☹ créant ainsi une 4e catégorie. Aux fins de l'exercice, le ± et le choix entre le ± et le ☹ ont été regroupés comme étant le même niveau de satisfaction (moyen).

- 12/38 (31%) of respondents reported being somewhat satisfied by the experience;
- 4/38 (10%) of respondents reported being dissatisfied by the experience.

We can thus conclude that, overall, the vast majority of students (89%) in the course EDUA 2901 *Le rôle de l'école dans la société* [*The role of school in society*], class of 2007-2008, found that using an online forum as a teaching and learning tool was a satisfying or somewhat satisfying experience. Only 10% of respondents stated that they found it to be a dissatisfying experience.

Question 2: I would like to keep ... ?

The second question asked students to identify the advantages in their experience of using an online forum as a teaching and learning tool. The number in parentheses at the end of the statement indicates the number of times the comment was made.

- *I like the fact that we have the opportunity to have discussions both in class and in the forum (5).*
- *The online forum is good for talking about the subject matter and for raising questions that come to mind.*

It should be noted that a certain number of students (6) found the forum experience sufficiently helpful for it to be maintained. They stated that the forum offers them another space and a different way to share their opinions about the various topics in the course.

Question 3: I would like to change ... ?

The third question asked students to identify aspects of the forum experience that needed improvement.

- *As an assignment, the online forum is a little too unusual! It's difficult to remember to participate and to find the program on the Internet. In my opinion, allotting 10% for this forum is a little too much!*
- *Online forum. I prefer class discussions because they're more authentic.*

Nous pouvons donc conclure que sur l'ensemble, la très grande majorité des étudiantes et étudiants du cours EDUA 2901 Le rôle de l'école dans la société, cohorte de 2007-2008, soit 89 % ont trouvé l'expérience du forum de discussion comme approche mixte comme outil d'enseignement et d'apprentissage satisfaisante ou moyennement satisfaisante. Seuls 10 % affirme l'avoir trouvée insatisfaisante.

Question 2 : Je souhaiterais maintenir ... ?

La deuxième question permettait aux étudiantes et aux étudiants d'identifier les points forts de l'expérience du forum en tant qu'outil d'enseignement et d'apprentissage du cours. Le chiffre entre parenthèses à la fin de l'énoncé indique le nombre de fois que le commentaire a été exprimé.

- *J'aime le fait qu'on a aussi l'occasion d'avoir des discussions en classe et au forum (5).*
- *Le forum de discussion est une bonne façon de s'exprimer au sujet de la matière ainsi qu'autres questions qui nous viennent en tête.*

Nous constatons qu'un certain nombre (6) d'étudiantes et d'étudiants ont trouvé l'expérience du forum suffisamment favorable pour qu'elle soit maintenue. Elles précisent que le forum leur offre un autre lieu et façon de partager leurs opinions sur diverses questions du cours.

Question 3 : Je souhaiterais changer ... ?

La troisième question permettait aux étudiantes et aux étudiants d'identifier les points à changer à la suite de l'expérience du forum.

- *Le forum de discussion est un peu trop hors de l'ordinaire comme travaux! Il est difficile de se souvenir d'y participer et de trouver le logiciel sur le site Internet. D'après moi, accorder 10 % pour ce forum est un peu trop de points accordés!*
- *Forum de discussion. J'aime plus les discussions en classe, car elles sont plus authentiques.*
- *Le forum de discussion semble paraître caché dans les exigences. Souvent, j'oublie qu'il existe. Quand je le visite, je suis perdu dans un océan d'entrée.*
- *De plus, je souhaiterais changer le nombre d'entrées qu'il faut faire pour le forum de*

- *The online forum seems to be hidden in the course requirements. I often forget that it exists. When I do visit the site, I get lost in a sea of postings.*
- *Also, I would like to change the number of postings that we have to do for the online forum. With all our other assignments, it's hard to remember to do them.*
- *Reduce the number of postings to the forum.*
- *The amount of times that we have to participate in the forum.*

Out of thirty-eight (38) students, six (6) expressed some reservations about their experience in the forum. Two people point out the challenge of remembering to participate. The additional workload that the forum represents is also given as a reason for wanting to make a change. Finally, the frequency⁵ of participation required by the professor could be reduced, as could the weighting (10%) in the final evaluation, which is deemed a little too high.

Question 4: Other comments, suggestions, questions ... ?

The fourth question asked students to offer other comments and suggestions or to formulate questions.

- *I also like the forum; it gave me a chance to use a technology that I hadn't used before.*

Only one person referred to the forum in question 4, specifying that the forum was a useful introduction to a technological tool.

Conclusion

Technology has invaded every aspect of our lives: personal, family, professional, social, academic, etc. The presence of the Internet and the Web has contributed to the creation of multiple networks that are used to exchange files and provide access to information at lightning speed, the likes of which has never been seen. In Manitoba, the Department of Education for the kinder-

⁵ The professor required participation once a week (reading postings) and seven (7) written contributions over the eleven weeks (11) of the course.

discussion. Avec tous nos autres travaux, il est difficile de s'en souvenir.

- Réduire le nombre d'entrées au forum.
- Le montant de fois qu'il faut participer au Forum.

Des trente-huit (38) étudiantes et étudiants, six (6) ont exprimé certaines réserves par rapport à l'expérience du forum. Deux personnes soulignent le défi d'y participer en raison de l'oubli. La charge de travail additionnelle du forum est aussi soulignée comme explication de vouloir un changement. En dernier, la fréquence⁵ de la participation exigée de la part du professeur pourrait être réduite tout comme la pondération (10 %) de l'évaluation finale, jugée un peu trop élevée.

Question 4 : Autres commentaires, suggestions, questions ... ?

La quatrième question permettait aux étudiantes et aux étudiants d'offrir d'autres commentaires et suggestions ou de formuler des questions.

- *J'aime aussi le forum, ça m'a permis d'utiliser la technologie que je n'avais pas utilisée auparavant.*

Une seule personne s'est prononcée sur le forum à la question 4 en précisant l'utilité du forum comme initiation à un outil technologique.

Conclusion

La technologie a envahi notre univers sur tous les plans : personnel, familial, professionnel, social, scolaire, etc. La présence d'Internet et du Web a contribué à la création de multiples réseaux occasionnant l'échange de fichiers et donnant accès à l'information à un rythme faramineux jamais connu encore dans nos temps modernes. Au Manitoba, le ministère de l'Éducation du système scolaire de la maternelle à la 12^e année exige une intégration de la technologie dans les écoles⁶.

⁵ Le professeur exigeait une participation d'une (1) fois par semaine (lecture des entrées) et sept contributions écrites sur une période de onze (11) semaines de cours.

⁶ For more information on ICT literacy in Manitoba, consult [<http://www.edu.gov.mb.ca/k12/tech/index.html>].

garten through grade 12 school system has mandated that technology be integrated into the schools⁶. These competencies, which must be developed among both staff and students, mean that the clientele from Generation Z, which is now entering post-secondary institutions, will have this additional skill in their repertoire. Faculty and administrators in post-secondary institutions should evaluate their processes, their teaching methods and the way their programs are organized.

Researchers remind us of the benefits of a blended learning approach when it is used as a teaching and learning tool at the university level. The online forum, as well as other technological means not mentioned in this article, can be used to support existing methods in order to enrich teaching and learning. This variety and flexibility will create opportunities for exchanging ideas, for which participants will have to reflect and build upon the ideas of others, as well as support them, in order to advance a topic of discussion.

It is important to remember that some people find it difficult to participate in face-to-face situations (in-class group discussions), either because they find it difficult to jump in or they must contend with the annoyance of being interrupted. To appreciate the online forum, it is helpful to evoke the metaphor of a meal: everyone is responsible for bringing something to the table to feed the others (Campos, 2004).

Austin (1997) (cited by Lavoie, Laferrière and Fortier, 2004) states that 50% of people prefer sharing their ideas on controversial topics in the context of an online forum, rather than in person. In addition, a forum helps to establish equality between people because, unlike what may occur in an in-class discussion, nobody has to negotiate his or her place within the conversation. Couper and Selfe (1990) (cited by Lavoie, Laferrière and Fortier, 2004) remark that, once back in the classroom, students demonstrate more divergent ideas and opinions after participating in an online forum.

Rosenbaum and Snyder (1991) (cited by Lavoie, Laferrière and Fortier, 2004) remind us of the importance of democracy when using a forum as a teaching and learning tool. The discussion topics should be adopted with the agreement of participants, which means both the students and the professor. Autocracy does not have a place in the cyber classroom (just as it does not have a place in the traditional classroom). Online forums

Ces compétences, à développer tant chez le personnel que chez les élèves, font en sorte que la clientèle de la génération Z qui envahit les établissements postsecondaires auront cette corde additionnelle à leur arc. Les professeurs et administrateurs des établissements postsecondaires devront s'arrêter et évaluer leurs façons de faire, leurs façons d'enseigner et d'organiser leurs programmes. Laferrière et Fortier, 2004) nous rappellent l'importance de la démocratie dans l'eLes chercheurs nous rappellent les bénéfices d'une approche mixte comme outil d'enseignement et d'apprentissage en milieu universitaire. Entre autres, le forum de discussion, et d'autres moyens technologiques, pas mentionnés dans l'article, peuvent venir appuyer les méthodes déjà en place afin d'enrichir l'enseignement et l'apprentissage. Cette variété et flexibilité créeront des occasions d'échanges d'idées dans lesquelles les participantes et participants auront à réfléchir, soutenir et construire sur les idées des autres pour faire progresser un thème de discussion.

Il faut se rappeler que les rencontres en situation face à face (discussion de groupe en salle de classe) forcent parfois au silence les personnes qui n'ont pas autant de facilité à intervenir sans oublier la fâcheuse habitude de se faire couper la parole. La métaphore du repas nous aide à apprécier le forum de discussion : chacun a la responsabilité d'apporter quelque chose à la table pour nourrir les autres (Campos, 2004).

Austin (1997) (cité par Lavoie, Laferrière et Fortier, 2004) affirme que 50 % des personnes préfèrent partager leurs idées sur des sujets controversés dans le cadre d'un forum électronique plutôt qu'en personne, de plus, le forum suscite une sorte d'égalité entre les personnes, car personne n'a à négocier sa place au sein de la conversation comme cela peut se faire en discussion de classe. Couper et Selfe (1990) (cité par Lavoie, Laferrière et Fortier, 2004) constatent qu'une fois de retour en classe, les étudiantes et étudiants manifestent une plus grande divergence d'idées et d'opinions après avoir participé aux discussions au forum électronique.

Rosenbaum et Snyder (1991) (cité par Lavoie, emploi du forum comme outil d'enseignement et d'apprentissage. Les sujets de discussion doivent être adoptés avec l'accord des personnes participantes, tant les étudiantes et

rely primarily on the ideas and not on the people (Harrington, 1996, cited by Lavoie, Laferrière and Fortier, 2004).

To summarize, online forums, when used as teaching and learning tools at the university level, offer distinct advantages:

- participants have more time to reflect, since they do not have to respond immediately to a question or to the subject matter;
- reading a contribution to the forum may inspire others to discuss, refine, complete, change or even abandon their ideas, depending on the circumstances;
- there is more time for exploring a topic, a question or an issue;
- more people can contribute to reaching consensus because more space is granted to minority opinions that are not always heard in face-to-face situations.

We also recognize the inconveniences related to online forums, including those that were cited by students. However, whether one is in favour of using online forums or not, we are of the opinion that blended learning approaches, as defined in this article, can support university teaching and learning and can lead to the transformation of certain pedagogical practices. The clientele demands it; society and the major technological transformations require it. University authorities and professors must rethink how they do things, in terms of both administration and teaching. Blended learning approaches, which go well beyond the use of online forums, the subject of this article, offer high-quality education that is effective, efficient, flexible and interactive. We are headed toward a profoundly innovative model of teaching and learning that will result in the coexistence of face-to-face dialogue and virtual networking.

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étudiants que le professeur. L'autocratie n'a donc pas sa place dans cette cyber classe (pas plus que dans la classe traditionnelle, d'ailleurs). Le forum électronique repose principalement sur les idées et non sur les personnes (Harrington, 1996, cité par Lavoie, Laferrière et Fortier, 2004).

En somme, le forum de discussion, en tant qu'outil d'enseignement et d'apprentissage en milieu universitaire, a certains avantages :

- les participants ont plus de temps de réflexion faisant en sorte qu'il n'est pas nécessaire de répondre immédiatement à la question posée ou au thème à l'étude;
- la lecture d'une contribution au forum peut stimuler l'autre à discuter, à raffiner, à compléter, à modifier ou même à abandonner ses idées, selon les circonstances;
- plus de temps et d'approfondissement d'un thème, d'une question ou d'un problème;
- plus de personnes peuvent contribuer à l'obtention d'un consensus en faisant plus de place aux voix minoritaires qui ne sont pas toujours exprimées en situations face à face.

Nous reconnaissons aussi la présence d'inconvénients liés au forum de discussion électronique dont certains ont été relevés par les étudiants. Cependant, que nous soyons en faveur ou non de l'usage du forum de discussion électronique, nous sommes de l'avis que des approches mixtes telles que définies dans cet article peuvent appuyer l'enseignement et l'apprentissage en milieu universitaire et nous amener à transformer certaines pratiques pédagogiques. La clientèle l'exige, la société et les transformations majeures en matière de la technologie l'obligent. Les autorités universitaires et les professeurs devront revoir leurs façons de faire, tant sur le plan administratif que sur le plan de l'enseignement. Les approches mixtes de livraison de cours, qui vont bien au-delà de l'emploi du forum électronique, objet de cet article, permettront d'offrir une éducation de qualité fondée sur l'efficacité, l'efficience la flexibilité et l'interaction afin de s'orienter vers une plus grande innovation d'un modèle d'enseignement et d'apprentissage qui permettra à la fois le dialogue en face à-face et le réseautage virtuel.

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“What we need to consider about the computer has nothing to do with its efficiency as a teaching tool. We need to know in what ways it is altering our conception of learning, and how, in conjunction with television, it undermines the old idea of school. We need to know if they change our conception of reality, the relationship of the rich to the poor, the idea of happiness itself.”

(From *Technology* by Neil Postman, 1992).

Impact de l'intégration des technologies de l'information et des communications en milieu scolaire autochtone

Impact of Integrating Information and Communication Technologies into Aboriginal Schools

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Résumé

Au cours des dernières années, l'utilisation des technologies de l'information et des communications (TIC) a fait l'objet de nombreuses discussions dans le monde de l'éducation. Le but de cet article est d'identifier, de comprendre et d'analyser les facteurs sous-jacents à l'appropriation et à l'intégration des TIC par les enseignants qui oeuvrent dans les communautés autochtones des Premières nations du Québec. La recherche réalisée au cours de l'année 2005 a été guidée par cinq objectifs spécifiques qui s'articulent autour (1) des attitudes des enseignants face aux TIC, (2) des usages des TIC par les enseignants, (3) des compétences TIC des enseignants, (4) des facteurs qui favorisent l'usage des TIC par les enseignants, (5) des facteurs qui inhibent l'usage des TIC par les enseignants. Les résultats permettent de constater que les TIC susciteraient la motivation et l'intérêt des élèves autochtones. Selon plusieurs répondants, les TIC favorisent une ouverture sur le monde et représentent de puissants outils pour préserver la langue, la culture et les valeurs traditionnelles autochtones. Finalement, nous avons identifié plusieurs facteurs qui inhibent l'intégration des TIC par les enseignants en milieu scolaire autochtone.

Introduction

Au cours des dernières années, la mise en place des services éducatifs axés sur la réussite scolaire est devenue une priorité nationale non seulement pour les intervenants du milieu scolaire, mais également, à une plus grande échelle, pour l'ensemble des communautés des Premières nations du Québec. Dans un contexte où plusieurs communautés autochtones des Premières nations du Québec sont en région, éloignées et isolées géographiquement, il est intéressant d'anticiper que les technologies de l'information et des communications pourront contribuer à préserver l'accessibilité à l'éducation tout en assurant un haut niveau de qualité

Abstract

In recent years, the use of information and communication technologies (ICT) has been the focus of numerous discussions in the field of education. The goal of this article is to identify, understand and analyze the factors underlying the appropriation and integration of ICT by teachers who are working in the Aboriginal communities of Quebec's First Nations. The research, carried out over the course of 2005, was guided by five specific objectives: (1) teachers' attitudes toward ICT, (2) teachers' use of ICT, (3) teachers' ICT skills, (4) factors that promote teachers' use of ICT, and (5) factors that inhibit teachers' use of ICT. The results indicate that ICT raise motivation and interest among Aboriginal students. According to several participants, ICT promote global awareness and represent a powerful tool for preserving traditional Aboriginal language, culture and values. Finally, we have identified several factors that impede the integration of ICT by teachers in Aboriginal schools.

Introduction

In recent years, the implementation of education programs geared toward academic success has become a national priority, not only for members of the educational community, but also, on a larger scale, for all of the First Nations communities in Quebec. Given that many of the Aboriginal communities of Quebec's First Nations are located in remote rural areas and are geographically isolated, it is interesting to speculate that information and communication technologies will be able to maintain access to education, while also ensuring a high level of quality (First Nations Education Council, FNEC, 2001). Since geographic location is no longer a determining factor of competitive advantage when it comes to economic opportunities, it is believed that using new technologies represents a golden opportunity for Quebec's Aboriginal communities. Specifically, it

(Conseil en Éducation des Premières Nations, CEPN, 2001). Ainsi, on présume que l'utilisation des nouvelles technologies représente une chance que devront saisir les communautés autochtones du Québec puisque l'emplacement géographique n'est plus un déterminant de l'avantage concurrentiel en matière de débouchés économiques. C'est notamment par la voie de l'apprentissage en milieu scolaire que les jeunes autochtones pourront faire l'acquisition de compétences en matière de technologie leur permettant ainsi de devenir des adultes autonomes, responsables, ouverts sur le monde et aptes à participer à l'économie du savoir (CEPN, 2001; Greenall et Loizides, 2001; Milton, 2003).

Problématique

À l'heure actuelle, de nombreuses études ont démontré une « faible » utilisation des TIC par les enseignants dans les milieux scolaires ainsi qu'une performance pédagogique mitigée (Galagan, 1999, cité dans Rogers 2000). Pour les enseignants autochtones et non autochtones qui œuvrent dans les écoles des communautés des Premières nations du Québec, on dénombre plusieurs obstacles qui freinent l'appropriation et l'intégration pédagogique des nouvelles technologies. Dans ces écoles, on identifie quatre grandes catégories d'obstacles : faible réussite des élèves, pénurie des enseignants, roulement du personnel et manque de personnels enseignants qualifiés en matière d'usage des TIC.

Faible réussite des élèves

Un bon nombre de jeunes des communautés des Premières nations du Québec vivent dans des conditions difficiles. Plusieurs sont aux prises avec des problèmes sociaux endémiques comme la pauvreté, le manque de soutien parental, la toxicomanie et l'alcoolisme, l'insalubrité des logements et les familles dysfonctionnelles. Le manque de perspective et le haut taux de chômage n'ont rien pour accroître leur motivation à poursuivre leurs études. Sur le plan de l'éducation, les élèves autochtones accusent un retard important d'instruction par rapport aux élèves non autochtones, particulièrement dans des domaines cruciaux comme la lecture, l'écriture, les mathématiques et les sciences. Ces retards augmentent considérablement leur propension à manquer d'assiduité et à abandonner leurs études tôt ou tard. De surcroît,

is through learning in the school environment that Aboriginal youth can acquire the technological skills that will enable them to become independent, responsible and globally aware adults who are well positioned to participate in the knowledge economy (FNEC, 2001; Greenall and Loizides, 2001; Milton, 2003).

Scope of the issue

Currently, various studies have indicated a "low" usage of ICT among teachers in the school system, as well as mitigated academic performance (Galagan, 1999, cited in Rogers 2000). For Aboriginal and non-Aboriginal teachers who work in the schools in Quebec's First Nations communities, various obstacles impede the appropriation and pedagogical integration of new technologies. Four major obstacles have been identified in these schools: low rate of student success, shortage of teachers, turnover of personnel and lack of teaching staff who are qualified in the field of ICT.

Low rate of student success

A significant number of young people from Quebec's First Nations live in difficult conditions. Many are struggling with endemic social problems such as poverty, a lack of parental support, drug addiction and alcoholism, poor housing conditions and dysfunctional families. A lack of opportunity and the high rate of unemployment do little to motivate them to pursue their studies. In the sphere of education, Aboriginal students show a significant delay in achievement when compared to non-Aboriginal students, particularly in crucial areas such as reading, writing, mathematics and science. These delays considerably increase the likelihood of students having poor attendance and eventually dropping out of school. Moreover, young people who do not have access to basic skills run a greater risk of ending up unemployed and relying on social assistance.

Shortage of teachers

According to the Canadian Teachers' Federation (2000), in recent years, a shortage of teaching personnel has struck Quebec, Canada and the world. Statistics reveal that, in Quebec, the number of full-time teachers retiring from public schools increased from 1,925 in 1998-1999 to nearly 2,500 in 2003-2004 and will dip slightly to

les jeunes qui n'auront pas accès à une qualification de base courent plus de risques de se retrouver sur le chômage et de vivre de prestations de la sécurité du revenu.

Pénurie des enseignants

Selon la Fédération canadienne des enseignantes et des enseignants (2000), au cours des dernières années, on assiste à une pénurie du personnel enseignant au Québec, dans l'ensemble du Canada et à l'échelle internationale. Des données statistiques révèlent qu'au Québec, les départs à la retraite du personnel enseignant à temps plein dans les écoles publiques devraient passer de 1925 en 1998-1999 à presque 2500 en 2003-2004 avant de s'établir à 2012 en 2008-2009.

Comme le suggère Makamurera (2006), la pénurie enseignante découle de nombreux facteurs dont l'abandon précoce de la profession enseignante dû principalement à la lourdeur de la tâche professorale demandée aux enseignants débutants, aux groupes-classes difficiles, à la précarité de l'emploi et à l'écart entre leurs attentes et la réalité vécue en salle de classe. Les données d'un sondage réalisé par Vector Research (2000) pour la Fédération canadienne des enseignantes et des enseignants révèlent qu'il était de plus en plus difficile d'attirer de nouveaux diplômés en éducation dans les régions rurales et éloignées. Considérant que plusieurs communautés des Premières nations du Québec sont très dispersées géographiquement, on estime que le milieu autochtone sera davantage affecté par cette pénurie d'enseignants au cours des prochaines années.

Roulement du personnel enseignant

Une étude réalisée par le CEPN (2003) révèle que le roulement du personnel enseignant dans les écoles des Premières nations du Québec représente une des plus grosses pierres d'achoppement à la formation et au perfectionnement des enseignants à l'intégration continue des TIC dans la pratique enseignante. Le ministère de l'Éducation du Québec (2004) révèle que le personnel enseignant qui œuvre auprès des élèves autochtones des écoles des Premières nations du Québec est plus jeune et de scolarité reconnue moins élevée que le personnel enseignant des autres commissions scolaires de l'ensemble du Québec. Les plus

2,012 in 2008-2009.

As Mukamurera (2006) suggests, numerous factors have contributed to the shortage of teachers, including early departure from the teaching profession, which is primarily attributed to the heavy workload assigned to new teachers, difficult classroom groups, job instability and the gap between expectations and the classroom reality. The results of a survey performed by Vector Research (2000) for the Canadian Teachers' Federation revealed that it is increasingly difficult to attract new Education graduates to rural and remote regions. Considering that many of the First Nations communities in Quebec are highly dispersed geographically, it is believed that the Aboriginal community will be seriously affected by the shortage of teachers in years to come.

Turnover of personnel

A study carried out by the FNEC (2003) indicated that the turnover of personnel in Quebec's First Nations schools represents one of the biggest impediments to training and educating teachers in the continuing integration of ICT with teaching practices. The Ministère de l'Éducation du Québec [Quebec Department of Education] (2004) notes that teachers who work with Aboriginal students in Quebec's First Nations schools are younger and have a lower level of formal education than those in the rest of Quebec's school divisions. The youngest teachers who are working in Aboriginal communities are often more familiar with the pedagogical integration of new technologies; however, they also exhibit a higher rate of turnover. The difficulty of adapting to Aboriginal culture and the enticement of jobs in urban areas create obstacles to retaining young teachers who have the desired qualifications and technical skills. Consequently, many of Quebec's First Nations schools are lacking in human resources qualified in the integration of technology.

Lack of teachers qualified in use of ICT

The effects of ICT on student learning outcomes have been recognized in Quebec's First Nations schools. A study entitled *Premières nations sur Rescol – Rapport sur les besoins des écoles en technologie* [First Nations SchoolNet – Report on technology needs in schools], carried out in 2003 by the FNEC in 36 First Nations

jeunes enseignants travaillant en milieu autochtone sont souvent plus familiarisés avec l'intégration pédagogique des nouvelles technologies, cependant, ils sont davantage caractérisés par un taux de roulement élevé. La difficulté à s'adapter à la culture amérindienne et l'attraction exercée par les emplois en milieu urbain présentent des barrières pour retenir les jeunes enseignants ayant les qualifications et les compétences techniques voulues. En conséquence, plusieurs écoles des Premières nations du Québec se retrouvent sans ressources humaines qualifiées en matière d'intégration des technologies.

Manque d'enseignants qualifiés en matière d'usage des TIC

Au sein des écoles des Premières nations du Québec, on reconnaît les effets des TIC sur les résultats d'apprentissage des élèves. L'étude intitulée *Premières nations sur Rescol – Rapport sur les besoins des écoles en technologie* réalisée auprès de trente-six écoles des Premières nations du Québec en 2003 par le CEPN, dénombre vingt-quatre écoles sur trente-six qui ont émis des commentaires positifs à ce sujet :

Des écoles précisent que les TIC sont utiles et qu'elles sont devenues des ressources éducatives très précieuses dans les classes. D'autres écoles font savoir que l'utilisation des ordinateurs motive les élèves. Les ordinateurs améliorent la compréhension des élèves dans divers domaines. (p.38)

À l'heure actuelle, les enseignants qui œuvrent dans les écoles des Premières nations du Québec « (...) s'appuient principalement sur leurs connaissances personnelles, surtout lorsqu'ils intègrent les TIC dans les salles de classe et qu'ils les utilisent comme outils d'apprentissage » (CEPN, 2003, p.6). En conséquence, pour ces enseignants qui ont peu ou pas de compétences professionnelles en matière d'appropriation et d'intégration des TIC, il est possiblement difficile de les utiliser comme outil d'apprentissage ou les intégrer efficacement dans leurs pratiques pédagogiques auprès de leurs élèves. Ainsi, le manque de formation des enseignants représente l'une des barrières des plus importantes à l'implantation des

schools across Quebec, showed that 24 out of 36 schools expressed positive comments on this topic:

The schools indicate that ICT are useful and that they have become invaluable educational resources in the classroom. Other schools mention that the use of computers motivates students. Computers improve student comprehension in various areas. (p.38)

At present, teachers who work in Quebec's First Nations schools "(...) are primarily supported by their personal knowledge, especially when they integrate ICT into the classroom and use them as learning tools" (FNEC, 2003, p.6). Consequently, for those teachers who have little or no professional skills in the appropriation and integration of ICT, it could be difficult to use them as a learning tool or to effectively integrate them with the pedagogical practices used with students. This explains why a lack of teacher training represents one of the most significant barriers to the implementation of teaching and learning technologies (Karsenti et al. 2002). For Aboriginal and non-Aboriginal teachers who work in Quebec's First Nations schools, maintaining a connection between pedagogy, technology, teaching and learning represents a major challenge.

Research objectives

The main objective of this research project was to identify, understand and analyze the factors underlying the appropriation and integration of ICT by teachers working in the Aboriginal communities of Quebec's First Nations. To be more precise, the five specific objectives of this study were as follows:

- The 1st specific objective was to examine the attitudes of teachers working in Aboriginal communities with regard to ICT.
- The 2nd specific objective was to identify the uses of ICT among teachers working in Aboriginal school environments.
- The 3rd specific objective was to assess teachers' ICT skills.
- The 4th specific objective was to identify and analyze the factors that contribute to using ICT in Aboriginal

technologies à l'enseignement et à l'apprentissage (Karsenti et al. 2002). Pour les enseignants autochtones et non autochtones travaillant dans les écoles des Premières nations du Québec, assurer l'arrimage entre pédagogie, technologie, enseignement et apprentissage représente un défi de taille.

Objectifs de recherche

L'objectif principal de cette recherche était d'identifier, de comprendre et d'analyser les facteurs sous-jacents à l'appropriation et à l'intégration des TIC par les enseignants qui œuvrent dans les communautés autochtones des Premières nations du Québec. Plus précisément, les cinq objectifs spécifiques de cette recherche sont :

- Le 1^{er} objectif spécifique est de préciser les attitudes des enseignants qui œuvrent en milieu autochtone face aux TIC.
- Le 2^e objectif spécifique est d'identifier les usages des TIC des enseignants qui œuvrent en milieu scolaire autochtone.
- Le 3^e objectif spécifique est de déterminer la compétence TIC des enseignants.
- Le 4^e objectif spécifique est d'identifier et d'analyser les facteurs favorisant l'usage des TIC en milieu scolaire autochtone.
- Le 5^e objectif spécifique est d'identifier et d'analyser les facteurs inhibant l'usage des TIC en milieu scolaire autochtone.

Cadre théorique

Le but poursuivi ici est de fournir aux lecteurs un panorama de l'utilisation des TIC en milieu scolaire autochtone à travers différentes composantes.

Au cours de l'année 2001, des éducateurs autochtones ont été rencontrés par l'équipe de Greenhall et Loizides dans le cadre d'une vaste étude portant sur les initiatives autochtones en matière d'intégration des TIC auprès de dix communautés autochtones des Premières nations réparties à travers le Canada. Selon ces éducateurs, l'utilisation des applications informatiques dans les divers contextes d'apprentissage pourra davantage favoriser le travail coopératif, motiver et enthousiasmer les élèves (Greenhall et Loizides, 2001). Les enseignants de l'école Otetiskiwin oeuvrant auprès des élèves issus de la nation crie

schools.

The 5th specific objective was to identify and analyze the factors that inhibit the use of ICT in Aboriginal schools.

Theoretical framework

This section aims to provide readers with an overview of the various ways ICT are used in the Aboriginal school environment. In 2001, Aboriginal educators met with the team of Greenhall and Loizides in the context of a large-scale study on Aboriginal ICT integration initiatives in ten First Nations Aboriginal communities across Canada. According to these educators, using computer applications in various learning situations can promote cooperative learning, increase motivation and raise enthusiasm among students (Greenhall and Loizides, 2001). Teachers from Otetiskiwin School, who work with students from the Nisichawayasihk Cree Nation, consider ICT to be "a way to attract and retain students because they are enthusiastic about computers" (Greenhall and Loizides, 2001, p.74). According to them, the use of technologies stimulates students' ability to be creative, acquire new skills, think critically and solve problems. Grégoire, Bracewell and Laferrière (1996) also point out that:

The use of new technologies promotes collaboration between students from the same class and between students or classes from different schools, whether near or far, making them aware of other realities and offering them access to relevant information. (p.22)

From this perspective, it would be useful to support their findings with an example from the province of Ontario. During the winter of 2003, a school-to-school peer support project was created for students in grades 10, 11 and 12 from Bayside High School in Quinte West and from Pelican Falls First Nation High School in Sioux Lookout. Using real-time videoconferencing via satellite, students from Bayside High School were able to help students from Pelican Falls High School develop a website for their school. For the students from Bayside, the objective was to share ICT problem solving skills, while the students from Pelican Falls improved their practical ICT

Nisichawayasihk considèrent les TIC comme « *un moyen d'attirer et retenir les élèves parce qu'ils sont enthousiasmés par l'informatique* » (Greenhall et Loizides, 2001, p.74). Selon eux, l'usage des technologies stimule chez l'élève la créativité, l'acquisition de nouvelles compétences, la pensée critique et l'aptitude à résoudre des problèmes. Grégoire, Bracewell et Laferrière (1996) soulignent également que :

L'utilisation de nouvelles technologies favorise la collaboration entre élèves d'une même classe et entre élèves ou classes d'écoles différentes, proches ou lointaines, à des fins de sensibilisation à d'autres réalités, d'accès à des connaissances pertinentes. (p.22)

À cet égard, il semble intéressant d'appuyer leurs propos par une initiative réalisée dans la province de l'Ontario. Au cours de l'hiver 2003, un projet d'encadrement interscolaire par les pairs a vu le jour entre des élèves de deuxième cycle secondaire de l'école Bayside située à Quinte West et des élèves de l'école des Premières nations Pelican Falls de Sioux Lookout. Grâce à la vidéoconférence en temps réel par satellite, les élèves de l'école secondaire Bayside aidaient les élèves de l'école secondaire de Pelican Falls à développer un site Web pour leur école. Pour les élèves de Bayside, l'objectif est de transmettre des aptitudes à la résolution de problème en TIC et pour les élèves de Pelican Falls, enrichir leurs compétences en matière d'utilisation des TIC. Pour Solomon Kakagamic, enseignant la technologie à l'école des Premières nations Pelican Falls : « *L'encadrement coopératif par les élèves fut une expérience d'apprentissage utile pour mes élèves* » (Walker, 2003, p.4). Par ailleurs, Saudoyer (2001) souligne que les élèves qui utilisent les ordinateurs en classe apprennent à interagir avec autrui, à construire des attitudes, des comportements et des valeurs.

Au cours du 3^e Forum national annuel « *Branchons les Autochtones du Canada* » tenu en mars 2004, les participants ont reconnu l'importance d'initier très tôt les jeunes autochtones aux TIC pour qu'ils développent leurs capacités et leurs compétences afin qu'ils aient accès à de meilleurs emplois. Pour continuer à favoriser l'intégration des TIC en

skills. According to Solomon Kakagamic, a technology teacher at Pelican Falls First Nation High School, "Cooperative peer support was a useful learning experience for my students" (Walker, 2003, p.4). In addition, Saudoyer (2001) notes that students who use computers in class learn to interact with others, as well as to construct attitudes, behaviours and values.

During the third annual "National Connecting Indigenous Peoples in Canada Forum," held in March 2004, participants recognized the importance of introducing Aboriginal youth to ICT from a very early age so that they develop their abilities and skills, and have access to better jobs. To continue promoting the integration of ICT in Aboriginal school environments, it is important to put conditions in place that will foster the acquisition of knowledge, abilities and skills among students and teachers.

Methodology

Based on the study's specific objectives, we opted for a predominantly qualitative and essentially descriptive methodology. Data were collected through an initial questionnaire submitted to teachers (n=33), a second questionnaire distributed to students (n=80), and a third questionnaire given to adult education students (n=9). Individual, semi-directed interviews were held with school or regional administrators (n= 7), teachers (n= 8), students (n=2), two library technicians and one IT technician. Group interviews were also carried out with teachers (n group=7), students (n group=17), a group of nine adult education students and a group of learning development resource staff from the schools in the Aboriginal communities of Mashteuiatsh and Betsiamites. The data gathered during the field study were examined according to L'Écuyer's content analysis method (1990). To produce a descriptive analysis of response frequency, the software SPSS, version 14, was used to calculate a number and percentage for each item in the questionnaires.

Presentation and discussion of results

The following sections describe the main results and their interpretation according to each specific research objective.

Objective 1: Examine teachers' attitudes

By and large, the teachers who were inter-

milieu autochtone en contexte scolaire, il importera de mettre en place des conditions favorisant l'acquisition de connaissances, d'habiletés et de compétences chez les élèves et les enseignants.

Méthodologie

En fonction des objectifs spécifiques de l'étude, nous avons opté pour une méthodologie à prédominance qualitative essentiellement descriptive. Sur le plan de la collecte de données, soulignons d'abord qu'un questionnaire a été soumis à des enseignants (n=33) et un second questionnaire a été distribué aux élèves (n=80) ainsi qu'un troisième destiné aux étudiants de l'éducation des adultes (n=9). De plus, des entrevues individuelles semi-dirigées auprès des directions d'écoles ou de secteurs (n= 7), auprès d'enseignants (n= 8), auprès d'élèves (n=2) ainsi qu'auprès de deux techniciennes en bibliothèque et d'un technicien en informatique. Des entrevues de groupe ont été également réalisées auprès des enseignants (n groupe=7) et auprès des élèves (n groupe=17) ainsi qu'auprès d'un groupe de neuf étudiants de l'éducation des adultes, de même qu'auprès d'un groupe des ressources de développement pédagogique des milieux scolaires des communautés autochtones de Mashteuatsh et de Betsiamites. Les données recueillies lors de l'étude terrain ont été examinées selon la méthode d'analyse de contenu adaptée de L'Écuyer (1990). Nous avons utilisé le logiciel SPSS version 14 pour produire l'analyse descriptive des fréquences des réponses visant à documenter en nombre et en pourcentage chacun des énoncés issus des questionnaires.

Présentation et discussion des résultats

Nous présentons les principaux résultats et leur interprétation en fonction de chaque objectif spécifique de la recherche.

Objectif 1 : Préciser les attitudes des enseignants

Dans l'ensemble, le personnel enseignant rencontré des communautés autochtones de Mashteuatsh et de Betsiamites a une attitude généralement favorable en regard de l'usage des TIC. Ainsi, les résultats recueillis auprès des différents personnels indiquent que plusieurs enseignants mentionnent avoir une certaine ouverture à utiliser les TIC dans leurs pratiques pédagogiques. Grâce aux nouvelles

viewed in the Aboriginal communities of Mashteuatsh and Betsiamites have a generally favourable attitude toward the use of ICT. The results gathered among various staff members reveal that many teachers express a certain willingness to use ICT in their educational practices. Using new technologies encourages some teachers to vary their modes of teaching and learning, while respecting their students' learning pace. The data also show that ICT may promote collaboration and sharing among teachers. Our analysis also identified factors that impede the use of ICT. We noted that some teachers were apprehensive about using ICT and others were irritated by the obsolescence of the computer equipment.

Objective 2: Identify teachers' use of ICT

With regard to ICT use by the teachers in our sample, it is clear that, according to the majority of respondents, ICT represent an invaluable resource in the school context. The data obtained through interviews with various staff members demonstrate that new technologies can promote the acquisition of basic skills and facilitate the employability of Aboriginal people. In addition, the results analysis indicates that the use of ICT varies from one teacher to another. In general, some teachers use ICT to prepare for teaching, to carry out research projects or to communicate with their students. The various staff members who were interviewed recognize that ICT also allow them to consolidate student learning and contribute to the development of critical thinking skills.

Objective 3: Determine teachers' ICT skills

Regarding teachers' ICT skills, the quantitative data indicate that nearly 50.0% of the subjects in our sample possess the necessary skills to use basic data management and communications software (Internet, email, word processing). According to the perceptions of different staff members who were interviewed, students seem to possess more ICT knowledge and skills than the teachers. Furthermore, in order for technology to be advantageous for students, teachers from the schools in Mashteuatsh and Betsiamites have adopted various pedagogical strategies. Guiding students' activities, and flagging and selecting websites related to learning constitute the primary pedagogical strategies employed by teachers.

technologies, certains enseignants ont tendance à varier leur mode d'enseignement et d'apprentissage tout en respectant le rythme d'apprentissage de leurs élèves. Les données montrent également que les TIC pourraient susciter la collaboration et l'entraide entre enseignants. De notre analyse, nous avons également identifié des facteurs qui nuisent à l'utilisation des TIC. Ainsi, nous avons constaté que certains enseignants avaient des craintes face à l'usage TIC et d'autres enseignants se disaient irrités par la désuétude des équipements informatiques.

Objectif 2 : Identifier les usages des TIC des enseignants

En ce qui concerne l'usage des TIC par les enseignants de notre échantillon, il ressort clairement que les TIC représentent un incontournable en contexte scolaire selon la majorité de répondants interrogés. Les données obtenues grâce aux entrevues réalisées auprès des différents personnels montrent que les nouvelles technologies peuvent promouvoir l'acquisition de compétences essentielles et faciliter l'insertion professionnelle des Autochtones. Par ailleurs, l'analyse des résultats a indiqué que l'usage des TIC était variable d'un enseignant à l'autre. De façon générale, certains enseignants utiliseraient les TIC pour préparer leur enseignement, pour réaliser des projets de recherche ou bien pour communiquer avec leurs élèves. Enfin, les différents personnels interviewés ont reconnu que les TIC permettaient de consolider les apprentissages des élèves et contribuaient à développer leur esprit critique.

Objectif 3 : Déterminer les compétences TIC des enseignants

En regard des compétences TIC des enseignants, les données quantitatives indiquent que près de 50.0% des sujets de notre échantillon maîtrise les compétences requises pour utiliser les principaux logiciels de bureautique ou de communication (Internet, courrier électronique, traitement de textes). Selon la perception des différents personnels interrogés, les élèves semblent posséder des connaissances et des habiletés TIC supérieures aux enseignants. Finalement, pour que la technologie profite aux élèves, les enseignants des institutions scolaires de Mashteuiatsh et de Betsiamites ont recours à diverses stratégies

Objective 4: Identify and analyze factors that promote the use of ICT

Upon analyzing the results, we observed that information and communication technologies create a bridge between the school and the world. Several respondents referred to a reciprocal understanding of peoples and intercultural dialogue.

According to the various staff members who were interviewed, ICT have the ability to preserve, transmit and strengthen Aboriginal culture, values and traditions. Thanks to the entertainment value and the diverse pedagogical practices adopted by teachers when they use ICT, the majority of the students in our sample manifested spontaneous interest and increased motivation.

Objective 5: Identify and analyze factors impeding the use of ICT

Among the various staff members who were interviewed in the context of this study, resistance to using ICT in the schools in the Aboriginal communities of Mashteuiatsh and Betsiamites was primarily limited to six factors: lack of computer equipment, obsolete computer equipment and recurrent technical problems, logistical problems, lack of knowledge about available software, inadequate technical support and a lack of training offered to teachers. It should be noted that obsolete computer equipment and recurrent technical problems, as well as the lack or inadequacy of technical support are the major obstacles most frequently cited by different members of the school.

Conclusion

The participants' responses reveal many elements that favour promoting the integration of ICT into the Aboriginal school environment. They also provide insight into the main objective of the present study. As Linard (2000) states, teachers primarily view ICT as tools for seeing, doing and sharing. For several respondents, ICT also promote global awareness. New connections can be created between different nations from the all over the world. These connections bring about a sharing of information, knowledge and points of view. Furthermore, the collected data demonstrate that ICT may help to end Aboriginal students' isolation by exposing them to new horizons and new faces.

In addition, it is interesting to note that the use of ICT in classrooms seems to help raise stu-

pédagogiques. Guider les actions de l'élève, baliser et sélectionner des sites Internet en lien avec les apprentissages constituent les principales stratégies pédagogiques mises en œuvre par les enseignants.

Objectif 4 : Identifier et analyser les facteurs favorisant l'usage des TIC

À l'analyse des résultats, nous constatons que les technologies de l'information et des communications permettent d'ouvrir l'école sur le monde, on assiste donc à une connaissance mutuelle des peuples et à un dialogue entre les cultures diront plusieurs répondants. Selon les différents personnels interrogés, les TIC ont le pouvoir de préserver, de transmettre et de renforcer la culture, les valeurs et les traditions autochtones. Grâce aux propriétés divertissantes et aux pratiques pédagogiques diversifiées adoptées par les enseignants lorsqu'ils ont recours aux TIC, la plupart des élèves de notre échantillonnage manifestent un intérêt spontané et une motivation accrue.

Objectif 5 : Identifier et analyser les facteurs inhibant l'usage des TIC

Pour les différents personnels interrogés dans le cadre de cette étude, les facteurs de résistance à l'utilisation des TIC dans les institutions scolaires des communautés autochtones de Mashteuiatsh et de Betsiamites se limiteraient principalement à six facteurs : le manque d'équipements informatiques, les équipements informatiques désuets et les problèmes techniques récurrents, le manque de logistique, la méconnaissance des logiciels accessibles, le soutien technique déficient ainsi que le manque de formation offerte aux enseignants. Notons que les équipements informatiques désuets et les problèmes techniques récurrents ainsi que le manque ou l'insuffisance du soutien technique représentent des obstacles majeurs ayant été le plus fréquemment mentionnés par les différents acteurs du milieu scolaire.

Conclusion

Plusieurs indices du discours des participants indiquent des éléments favorisant l'intégration des TIC en milieu scolaire autochtone. Ils donnent ainsi des pistes de réponse à l'objectif principal de la présente recherche. Comme le mentionne Linard (2000),

dents' motivation and interest. The teachers who were part of this study emphasized their students' genuine enthusiasm for learning activities that incorporate ICT. Through the pedagogical integration of ICT into the Aboriginal school curriculum, we see a potential for improving academic results and strengthening Aboriginal linguistic and cultural revitalization.

Given their keen interest in ICT and their position as navigators and pioneers of the Internet generation, it is vital that we provide young people with access to the necessary new technologies, skills, information and knowledge that will guarantee them a better future.

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les enseignants considèrent les TIC d'abord comme des outils pour voir, pour faire et pour échanger. Ainsi, pour plusieurs répondants, les TIC favorisent une ouverture sur le monde. De nouvelles interactions semblent s'établir entre différentes nations des quatre coins du monde. Grâce à ces interactions, on assiste à un partage de connaissances, de savoirs et d'arguments. De plus, les données recueillies ont permis de constater que les TIC pourraient briser l'isolement des élèves autochtones en leur faisant découvrir de nouveaux horizons et de nouveaux visages.

Par ailleurs, il est également intéressant de préciser que l'utilisation des TIC en classe semble aider à susciter la motivation et l'intérêt des élèves. De fait, les enseignants rencontrés soulignent un enthousiasme marqué chez leurs élèves durant les activités pédagogiques utilisant les TIC. Par l'intégration pédagogique des TIC dans le cursus scolaire des élèves autochtones, nous voyons des possibilités d'améliorer les résultats scolaires et de renforcer la revitalisation linguistique et culturelle autochtone.

Reconnaissant que les jeunes ont un engouement pour les TIC et qu'ils sont les principaux navigateurs et éclaireurs de la génération Internet, il est urgent ici d'assurer l'accès de ces jeunes aux nouvelles technologies, aux compétences, aux connaissances et aux savoirs nécessaires pour leur garantir un avenir meilleur.

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MERN FORUM NUMBERS 11-15: PRESENTATION LISTING

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- Alexa Okrainec

Gifted high school students experiences of messy math
- Paul Betts & Laura McMaster

Connecting research to policy and procedure: Safety and security
- Doug Milak John Minshull & Barry Gooden

Research-based revision of Manitoba transition planning process support guidelines for students with special needs reaching age 16
- Youn-Young Park & Tim Thorne-Tjomsland

Integrating the Dakota culture into high school curriculum
- Olivia Murdock, Kaitlin Demas, Kelly Antoine, & Helen Armstrong

Research, policy, practice working together: Putting the pieces together
- Denise Belanger

What is the distance in distance education?
- Glen Gatin

Making education work in Manitoba schools
- Betty-Ann Mclvor

School development planning: Connecting research to policy
- Donna M. Michaels, Marlene Gregory, Nancy Dane, & Terry Osiowy

L'élaboration d'une politique de l'exogamie dans le cadre de la gestion scolaire francophone en milieu minoritaire
- Jules Rocque

Differences in special education students' perceptions of classroom support in cluster vs. integrated classroom settings
- John Kreshewski

Standing tall: A community initiative in education
- Sharon Conway

From school in community to a community-based school: Examining the influence of an Aboriginal principal on school development
- Brian Lewthwaite

From research to practice in our senior high schools
- Donna M. Michaels, Greg Malazdrewicz, and Adrian Kuryliw

How to increase success and satisfaction with online learning?
- Glen Gatin, Lili Jardine, and Glenn Cockerline

Connecting Research to Policy and Practice: Closing Summary
- Jules Rocque

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- Angela Chalmers

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Working toward transformative learning in adult literacy education
- Karen Magro

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- Boniface Etuk

Service learning in teacher preparation programs
- Alexa Okrainec

The importance of interpersonal relations in adult literacy programs
- Marion Terry

Engaging levels of knowing for adult classroom instruction: Three cognitive processes
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Community schools partnership initiative
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- John Hansen and Richard Julien

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