What is *The Canadian Journal for Teacher Research*?

What you see here is our first attempt to pull together teacher research in Canada. We believe that, although the job might be hard the quest is worth it. For us, it is about teacher power. We trust teachers and we believe they have powerful knowledge, insight, and experience that should be shared widely—and we mean to attempt that sharing. We—teachers—are a community, bound by an ethos: we care about children and we want to help them learn.

We also believe that teacher research is important and that not enough of it is done. We hope, in some small way, to correct that poverty. Our work is based upon three beliefs about research. Belief one: the WHAT is important; we need to seek and create knowledge and that knowledge should be based upon our best inquiry. Belief two: the SO WHAT is important. Although research-informed knowledge is important, it is not important all by itself. We—teachers—are a community of critical action. We need to consider how what we learn SHOULD be applied. And, we are proudly applied researchers. Belief three: the NOW WHAT is important. As we consider WHAT we have learned and how we SHOULD apply, we have to DO. That is, all the talk in the world will not meet the ends of our vocational action. We have to actually engage children in the best ways we know how, with the best of what we have learned.

These things are what *The Canadian Journal for Teacher Research* is all about. And, this is our first attempt. We encourage you to read our humble submissions to creating and engaging knowledge; and, we encourage you to join us in our quest to further teacher research and teacher power in Canada. Our goal is nothing less than to transform teaching in Canada. We invite you to help us with that work.
# Canadian Journal for Teacher Research

## Volume 1, Number 1: Multi-Literacy

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Teaching Multi-Literacy

Stephen Murgatroyd, PhD

Human life, in and out of school, is complex. Personal, public, and educational changes can be dramatic, and these changes transform how we communicate. How we define and how we teach literacy may also have to change. Because our Journal’s focus is Canadian teacher research, we necessarily choose to ground our work in schools – however schools might be designed. In our inaugural issue, dedicated to the teaching of literacy, we want to focus upon what it means to teach literacy and what it means to become literate. Perhaps, we need drastic pedagogical change: perhaps we need to embrace our traditions more tightly.

We have chosen the term “multi-literacies” to highlight two important, related changes. First, Canada is growing more culturally and linguistically diverse. Literacy calls us to negotiate community and global differences, as our lives increasingly interconnect. All languages, English and French included, change and morph. No longer is a single, standard language even possible. Migration, multiculturalism, and global integration intensify this process of change. Second, conceptualizing “multi-literacies” helps us consider the influence of new communication technologies. Meaning is increasingly multi-modal, and written literacy is now only part of a broader literacy that includes visual, audio, and spatial. The Internet is the chief example of literacy’s versatility – the interactive multimedia of a complex, communicating world.

In this context, we have invited teacher research about how teachers can help children become literate. What does literacy mean? How can, and should, “multi-literacies” transform the curriculum and pedagogy of our language and communication? Will old pedagogies cut it? Must we embrace open-ended, flexible, and functional grammars to help language learners consider the cultural, regional/national, technical, contextual differences of language and the multi-modal meanings that seem so crucial to better communication in our world?
The *Canadian Journal of Teacher Research* is a new, online Journal which enables teacher researchers to publish their work in a peer reviewed online Journal, present the key ideas from their research in both a published paper and a blog, interact with readers about the issues raised in their papers, and present their ideas (if they chose to do so) using a short video. The *Canadian Journal of Teacher Research* is a new kind of Journal for a new age of teacher-led research. The Journal’s aim is to improve practice on the basis of research evidence and understanding.

The first issue focuses on literacy, multi-literacies, and the implications of literacy for student and teacher learning, school-based curriculum and instruction, school systems, and for teaching. We will follow this edition with other topics. We invite you to submit your thoughts.

Submissions should follows the guidelines attached and should be made to Professor Jim Parsons, a member of the Department of Secondary Education at the University of Alberta. Jim will serve as the Executive Editor of the *Canadian Journal of Teacher Research*. Although our first edition has focused on literacy research, we encourage you to think expansively about both research and literacy. Submissions should document the article’s rationale for the research, the research process (methods and data) and analysis and then look at the implications of this work for teachers, school administrators, systems administrators, and policy makers where it is relevant to do so. If, in addition to the article itself, you submit an opinion piece about the meaning of this work (between 650 and 850 words) it will appear as a blog on the Journal site.
Uplifting the Teaching Profession

Jim Parsons, PhD and Dennis Shirley, PhD

The piles of contradictory research available about education today can be baffling. Some days, we feel we have no choice but to just throw up our hands in despair. How shall these conflicts be sorted out? Foundationally, we believe no sorting out will occur without teachers in the room. Teachers know much about what often does not find its way into policy. Here is one thing we know. The task of including teachers in policy building is crucial because the conditions under which teachers work cannot be removed from their abilities to help students learn. This begs the question: What do teachers need to do their work well?

We believe teachers need effective ways to focus on their core task of improving teaching and learning. In times of financial constraint, increasingly a pattern in Canada, governments’ educational policy becomes conservative – focused first on audits and second upon assignment. The result is political “salami slicing” – an approach we have seen in Alberta where the highly innovative Alberta Initiative for School Improvement (AISI), despite excellent results, was “trimmed” from the educational budget in March, 2013. Provincial educational leaders retreated to the security of bureaucratic apparatuses, and any hint of collegial approaches to educational progress fell victim to self-protective “cones of silence.” School level budgets have been cut and innovation exorcised. This does not favor our students, our teachers, our communities, or our country. Engaged collaborative/creative thinking is desperately needed now to forward our students’ learning and to improve our schools into places we all want to work in.

A second thing we know is that educational improvement must be practical and collaborative. Even if schools and students differ, when teachers work together, student learning improves. Our recent research on teacher professional learning and teacher efficacy in Alberta tells us that teachers believe “collaboration with colleagues” – learning to work together through mutual engagement – helps them improve their teaching because it opens
spaces where they share their practices and insights with others. Such a process is truly collaborative and comes with a number of powerful concomitant engagements.

Specifically, when teachers critically and creatively engage each other, learning will be improved. The process is less like moving an egg from one carton to another and more like making an omelette. The old way was to move a de-contextualized “best practice” from one teacher and school to another teacher and school. More to the point, traditional professional development practices were largely based on transferring knowledge from an expert to an audience. And, here is the key: Research shows that seeing one’s self as an audience is rarely an effective path towards educational growth. The new way is to believe teachers come full – not empty. Although we are indeed individuals, we live and work in schools – which should be communities of shared practice. We learn from one another.

Such shared learning has three key characteristics: First, it involves interacting with others around mutual insights about practice; Second, it believes all educational partners should interact because they all have something to offer the community, and by interactively sharing what they know, learning will be mutually beneficial; Third, the work is empirical. That is, it is research-informed, because teachers have lived it and know it. Grassroots research often involves collaborative inquiry in the first place – as Kurt Lewin knew when he developed the groundings for Action Research more than fifty years ago. A community of practice is first a collaborative activity where two or more people make a decision to interact with each other and open themselves to influence from another who they see as having something to share.

Here is a third thing we know: The kinds of non-interactive transmissions of “good” practices during isolated professional development events that focused more upon what teachers did and less upon what teachers knew were poor ways to improve teaching and learning. Rather than independent, one-sided transfers of so-called best practice, we believe teachers need interdependent, mutual, and transformative conversations of shared practice. Transfers from one person or place to another seldom improve schools. Teachers need competent partners with professional capital, desire for reciprocity, collegiality,
trust, and audaciousness fuelled by collective moral purpose. These are, we believe, the marks of professionalism that dares evaluate and challenge what does not work for our children today. We are all teachers together in this!

Here is a fourth thing we know: We know that working as educational partners can make a difference. And, this is where *The Canadian Journal for Teacher Research* comes in. We see, by starting this Journal, a way to stand up to be counted as a force for educational transformation. The Journal is a partnership of trust that invites those who care to help us identify needs and implement educational improvement. We believe in high standards for teaching and learning; in clear and well-discussed educational policies; in involving and building educational partnerships with our students and their parents; in creating spaces for provocative conversations about educational actions; in drawing support from many sources; and in sparking broad and deep discussions about teaching and learning.

We have designed *The Canadian Journal for Teacher Research* for teachers. We hope the Journal helps teachers become more collaborative. For us, this means that teachers should no longer remain isolated in single schools, cloistered from colleagues with common interests. We believe teachers’ work will improve as they offer, receive, share, and discuss their own “good practices” with others. We believe reflective improvement in teaching and learning can become embedded, ongoing, and sustainable. Finally, we believe teachers can benefit from expanding networks that provide spaces to create, challenge, and support collegial sharing focused upon teaching and learning practices.

We see *The Canadian Journal for Teacher Research* as a space for teachers’ professional learning and development. The Journal is nothing less than a collaborative inquiry that works to engage teachers in professional research defined broadly about teaching and learning as a means of building instructional agency and informed practice. Because we believe teachers share goals, we believe collaborative problem-solving to pursue these common goals helps us all transform practice – including the practice of “engaging” an educational research-informed Journal. We believe our Journal can help teacher
researchers and other researchers work together both within local schools and on the educational borders and margins we all share. Our shared goal is to develop better ways of teaching so as to support student learning.

We hope to build a space where teachers, individually and collectively, try out new ideas in classrooms and share their findings – the success of these efforts. Thus, *The Canadian Journal for Teacher Research* is a place where we will write about teaching and learning and critically consider our collective work as teachers. We are a collaborative problem-solving group undertaking the building of a shared way to talk about teaching and co-constructing a discourse community. We are a community of practice convinced that knowledge construction about teaching and learning emerges from systematically considering practice, that teachers should be part of that consideration, and that we will all benefit from chances to share insights about the pursuit of our common interests. Any discourse community is made richer by inclusion. None of us are on our own in this work.

So, welcome to *The Canadian Journal for Teacher Research*. Our collaborative inquiry will offer teachers structured and monitored opportunities to consider what practicing teachers have not been privy to in the past. We hope to create a professional shift in teaching and learning practice. We invite others to join our work to build and to sustain a collaborative community of practice and to help us generate the enthusiasm to persist the difficulties that might come. For us, this initiative is a priority.
Why Literacy is a Major Challenge for Canada

Stephen Murgatroyd, PhD

On measures of adult literacy, according to the OECD, Canada ranks 10th on scores of adult literacy using the five point scale of literacy widely in use for such comparisons. Ahead of us are: Japan, Finland, Netherlands, Sweden, Australia, Norway, Estonia, Slovak Republic and Belgium. Put simply: we are at or about the OECD average.

Estimates of the productivity gains from improving literacy in Canada are enormous. The TD Bank Financial Group projected that raising the literacy of Canadians with inadequate reading skills (levels 1 and 2) to an adequate skill level (level 3) would have an economic payoff close to $80 billion a year. Even a one percent improvement in literacy rates, nationally, would boost Canada’s economy by $32 billion a year. According to the C.D. Howe Institute, these effects are three times as great as for investment in physical capital. As well, raising literacy and numeracy for people with weak and poor skills may have a greater impact on long-run economic growth than investing in more highly skilled graduates.

Alberta has developed a framework for response to this opportunity (see: http://eae.alberta.ca/media/219400/livingliteracy.pdf) but it needs considerable focused investment at the level of the firm to aid competitiveness and productivity – functional illiteracy being the largest single factor in our low productivity as a nation.

In all, approximately 850,000 Albertans, at work, do not have the cognitive literacy skills needed to perform as fully functioning productive employees in jobs they currently hold. These include individuals in professional positions, like nursing, teaching, technical and scientific positions as well as individuals in retail, service professions, and the trades. Making an investment in cognitive literacy and essential skills would:

• Increase productivity and competitiveness
- Reduce our reliance on immigration for needed skills
- Increase tax revenues by over $1,200 per person in work at Level 3 of literacy annually.

The average cost of an intervention to bridge the literacy gap, per person, is $1,500 (app.) – for an estimated 850,000 persons, this would be a cost of around $1.275 billion shared between government and industry. A targeted investment of half of this amount aimed at ensuring that key professions and trades have the skills needed to be successful; and supporting the implementation of the literacy framework could make Alberta a much more productive jurisdiction.

Literacy is not just an educational challenge; it is a social and economic challenge. Poor literacy harms health, social, and economic mobility and limits community development. Literacy is a major challenge for Alberta.
Recreating Cultural Literacy: A Dane-zaa Knowledge Perspective

Garry Oker, MA

Garry Oker is an Executive, Strategic Thinker, Project Planner, Corporate Facilitator, Design Consultant, and Entrepreneur in the art of leadership development. He provides counsel to profit and non-profit organizations who wish to identify strategic processes that incorporate Indigenous design principles with business development frameworks. Oker is a member of Doig River First Nation in Northeast British Columbia.

Introduction

How do we create experiences that bring out the literacy deeply embedded in nature? How do we create an Indigenous worldview that networks Indigenous knowledge so we might better influence the teachers of our youth? Our global challenge is creating “the future of the past.”

Learning our place in the world through the evolving stories of the universe is the ancient practice of Indigenous people. The elders remind us that we are spiritual beings having earthly experiences. Indigenous thinking links us to the depths of the earth; our knowledge system builds upon thousands of years of life experiences and environmental tradition. Our quest is to understand the sacredness of a tree so we may discover the relationship between a material world and our spiritual consciousness.

The Dane-zaa knowledge worldview requires that we understand seven dimensions. The four directions: south, north, east, and west; the center; the spiritual world; and the underworld. This teaching mythology is a study of our unconsciousness spirit. This human interplay between realities is what we call indigenous science. Mapping our mind helps connect and synthesize ideas so we may see the truth of our sacredness.
The act of dream mapping is a ritual that explains the Dane-zaa people’s understanding of our spiritual universe by creating a pathway to spiritual design. Spiritual design details the memory of a spiritual journey. This moose hide drawing is dreamer Charley Yahay’s explanation of that view. Dr. Robin Ridington took that picture in 1966. The drawing below is my own version of the seven dimensions.

Dane-zaa people always look for a good place to camp so they may live well on the land. A good place allows the hunter to see in all directions. A good place includes water, shelter, firewood, and wildlife. A good place is also a sacred place to dream. When we sleep well, we connect to the spiritual wonder of our ancestors’ dreaming traditions. Good places are energy portals that connect us to nature. Such places exist all over the world.
Disremember To Remember

It is essential to incorporate thoughts of higher consciousness by remembering the future and waking towards our identity. We together will redefine our roles and rediscover the meaning of the universe. For us, nature has a literacy, which we are called to read. Indigenous people know what to offer the world. But we must awaken our spirits and act upon what we know. We need places to be oral so we may speak the spiritual truth. If the world is shaped by our thoughts, we must better understand the process of unlocking what we know about ourselves.

Aboriginal people need a cultural literacy so we may share our natural gifts. We need sites where we discover our purposes and roles. We must reshape our cultural literacy so we may discover new approaches to life that allow our minds, bodies, and spirits to evolve new thoughts. Such principles should promote common goals and visions. They should improve relationships by aligning them with shared opportunities and processes. Finally, our cultural literacy should empower creative processes and initiatives that include heritage development and inspired innovative workplace culture.

If our thoughts create our world, the world must be integrated to reclaim the holistic designs of nature. We must combine an Indigenous knowledge system with emerging scientific knowledge so we may transform our conscious mind. What would conceptualize cultural literacy disciplines look like if they were to promote mental awareness? To understand this concept, we must understand the information already flowing through a complex system.

Cultural Design Thinking

Traditional knowledge keepers communicate multi-dimensional stories about the universe. Literacy principles – arithmetic, geometry, music, astronomy, archeology, mythology, and psychology – are all key for understanding “Cultural Design Thinking.” For example, we apply arithmetic to evaluate a number of seasonal rounds so we may view a thousand years in one day. Geometry helps us map sacred places by discovering the volumes of spiritual
vibrations and how sacred locations relate to each other. Drumbeats use the timing and rhythms of seasonal songs to become active with the land, and astronomy maps the universal sky so we may discover the trail to heaven in time and space. Archeological literacy exhibits how our ancestor’s mythological stories shape our imagination with archetypal characters that teach us to understand our own experiences. Our Dene cultural literacy helps us recognize wise stories that bring happiness.

The Dane-zaa people have a collective long-term memory triggered by the sensory cues of a song, a scent, a flower, an archetypal character, or the shape of a sunrise. These symbolic cues guide us as we travel back in time to see how people behaved when meeting new situations. Many stories tell us how things come about. How was the world created? What happened to the giant animals? Who are Dane-zaa cultural heroes? How did the red fox get its color? And, how do dreamers bring back songs from heaven? Each story challenges our consciousness, jolting us from conclusions too quickly made in the face of uncertainty.

**Songs Ahead Of Time**

Our greatest challenge is to seek personal power songs in sacred places. A song waits to help each person discover his or her power. The Dene people shape the world through singing dreamers’ songs so the land can feel needed and continue to provide for us. We align our energy by dancing together in the rhythm of natural cycle to see something greater than ourselves.

We sing songs for people because, as song keepers, we are socially responsible to care for others. That’s our tribal literacy. We have songs for everything – wind, animals, children, women, weather, war, and peace. We seek the right songs for each ceremony by remembering the future. Prayer songs are “songs ahead of time.” The songs are sent ahead of people so, when they arrive at their destination, the location is already blessed.

How do songs govern social interactions with sacred places on the land? The birth of songs and relationships becomes nature’s mosaic. Birds, animals, and humans share songs. Nature’s literacy is translated through vibration.
We play these songs for ceremonies and funerals to help people heal their spirit. Prayer songs are “songs ahead of time.” The songs are sent ahead of people so, when they arrive at their destination, the location is already blessed. These songs are melodies of the land. They have no words. They are a spiritual guide with the intent to connect your spirit to ancient wisdom.

**Design of Memory Tree**

The Dane-zaa elder’s have always said we are part of nature, and nothing exists but nature. I always wondered why the elders told stories about thunderbird, spruce tree, and animal. I believe it is their way of teaching the symbolic memories of a place. Traditional stories guide our behavior when we enter these places. The lesson is to be quiet so we may hear the beauty of life flow. Dawn is the best time when the chickadee sings.

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1 See: http://www.teacherresearch.ca/blog/article/2014/01/07/235-recreating-
One famous Dane-zaa legend is of big old spruce tree. Here the thunderbird (Natunna) comes to make babies. It is a sacred place because thunderbird berries grow there. Here, also, a dreamer asked daylight to help him send his songs to the world. The world is too big, he said, “Help me put a song on the tip of the light beam so when the sunlight hits people they will know.” This is why today, when people awake, they are blessed with dream songs.

**Nature’s Laws**

Our DNA is encoded onto the land. We are constructed with treelike patterns, and the blood that runs through our veins is mostly water. Natural law dictates the flow of energy. When we are close to it we understand its flow. We see the truth of living things. The brain always seeks patterns that make sense. This is why it likes music, stories, and smells. A lighting bolt’s flow system for discharging electricity is a tree branch structure. The river basin produces similar architecture, moving water currents from headwaters to mouth. Tree-like patterns emerge in nature because they are effective designs for facilitating energy. The design structures of water systems, river basins, our lungs, and lightning bolts share similar design principles as tree roots. Such similarities are neither random nor accidental. This is why “to live in harmony” means we must be stewards of the land.

Natural law is the evolving flow of social systems of our land’s cultural language. The psychological foundation of the people is at stake. To be alive is to keep flowing and transforming. Dane-zaa people do this by harvesting the land through seasonal rounds of spring, summer, fall, and winter. The psychological well-being of the people is renewed by going to different areas of the land for medicines and food throughout the year. Visiting burial sites of relatives, going to dance sites, hunting, fishing, picking berries, and walking ancient trails are activities of the land that create the psychological spirit and literacy of the Dane-zaa people.

**Intellectual Language**

I now understand that the flow of nature makes us come alive. When water flows, it is alive. The same is with our blood: when it flows we are alive. To
flow, systems must have clear pathways so energy may move through them. This energy flow helps elders find a “good place” where you feel the energy of natural order.

Every culture is a branch of family kinship. What does it mean to be human when you lose a language for seeing the world? Your intellectual wealth is gone. The history we know is stopped when cultural exchange no longer exists, and we are disturbed because we no longer have the wealth that makes us Dene.

Today, we are witnessing the loss of our social and cultural interaction with the land and the language that describes it. Half the world’s indigenous languages are extinct. Our own Dane-zaa language is on the verge of extinction. The beauty and poetry of our language is the literacy of our sacred places. (KEMA ahwhojode) is where we are shown the beauty of tranquility and purity.

(Wholeha ta hada) means everything is alive. This concept describes that the flow of spirit is a movement of relationship to all living things. Our people today still acknowledge this connection by saying “All my relations.” They are talking about spiritual beings at the molecular level. Everything that moves is a flow system. Knowing a good spirit flow is the primary goal of our cultural literacy. When man disrupts nature, nature becomes unnatural and the spirit darkens.

The Dane-zaa dreamer’s code of honor states, “Take only what you need.” To know why things behave as they do, we must recreate a literacy that allows us to see what flows through us, what shapes our structures, and what emerges. Natural law tells us why patterns form which empower us to predict change. We must retain or recreate this literacy so our culture may survive and grow.
Reraming the Puzzle: Collaborating for Multi-Literacy Instruction

Kurtis Hewson, Faculty of Education, University of Lethbridge
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Introduction

In contemporary classrooms, two undeniable truths exist in relation to literacy instruction. The first is that the definition of what constitutes literacy instruction has significantly expanded for today’s educators and school systems. Literacy is no longer merely focused on reading and writing skills, it is not restricted to isolated Language Arts periods and it is not the sole responsibility of the English department. Literacy instruction encompasses a much wider set of skills for students and teachers, infused into every subject area and the responsibility of every faculty member.

The second undeniable truth is that today’s classrooms are more diverse, with an ever-expanding range of students’ needs and learning styles for teachers to not only be aware of but to plan for accordingly. As classrooms continue to evolve as inclusive learning environments, where differentiated instruction and attention to individual student learning needs are the norm, the skill set required for teachers is much greater than was required in the past.

Teacher quality has been argued as one of the greatest predictors of student success (Davis & Higdon, 2008). Teachers are undoubtedly the most critical piece of the greater puzzle that is effective literacy instruction. However, the puzzle has undergone a major fundamental shift in its overall design. How we envision the teachers’ part within it must shift to meet the multi-layered demands of effective literacy learning for students.
Expansion of Literacy Instruction

Colloquial views of education have long supported the pillars of the three “r’s” – reading, ‘riting, and ‘rithmetic. Traditionally, literacy instruction hinged upon the first two, focusing primarily on the development of reading and writing skills, and thought of almost exclusively in terms of print (Wright, 2007). This instruction was confined to English or Language Arts classes and, at later grade levels, was the sole responsibility of the English department. Today, this view no longer fits what we define as literacy or literacy instruction. As Gee (2003) argues, the contemporary literacy domain includes “any set of practices that recruits one or more modalities (e.g. oral or written language, images, equations, symbols, sounds, gestures, graphs, artifacts, etc.) to communicate distinctive types of meanings” (p. 18). What is viewed as literacy has ballooned to include a wide range of skills, processes and understandings.

Grisham and Wolsey (2006) contend that traditional literacy classrooms are environments that typically ensured the transmission of knowledge. In these environments, students were taught how to decode early reading passages, learned various strategies to comprehend text (typically fiction), and mastered the formula for crafting a five-paragraph essay. However, the arrival of the “new literacies” (International Reading Association, 2002) has profoundly influenced and forever changed this transmissive mode of instruction. Literacy has always been about sharing and responding through text and writing, but “the new literacies contain even more of a social component than traditional literacies” (Leu, 2002, p. 314), as well as an emphasis on constructing, not just transmitting knowledge. These new literacies require that teachers of literacy become teachers of what the New London Group has referred to as multi-literacies, which includes but are not limited to technological literacy, visual literacy, media literacy, and information literacy (Sylvester & Greenidge, 2009). As a result, teachers are increasingly challenged to “thoughtfully guide students’ learning within information environments that are richer and more complex than traditional print media, presenting richer and more complex learning opportunities for both themselves and their students” (Leu, Kinzer, Coiro, & Cammack, 2004, p. 1599). Obviously, this shift from traditional print media means that, in “today’s primary classrooms, the definition of ‘text’ has expanded to include multiple modes of representation, with combined
elements of print, visual images, and design” (Hassett & Curwood, 2009, p. 270). Despite the obvious reliance on the critical selection, navigation, and utilization of a wide array of technologies, further compounding this challenge is that as many as two thirds of teachers graduating from education programs today feel underprepared to use technology (Kajder, 2005), a percentage that, it would be safe to assume, is considerably greater for teachers with years of experience in the classroom.

This shift in what constitutes literacy has resulted in a shift in the role of the classroom teacher. Traditional roles included teacher as facilitator, teacher as instructor, and teacher as model; but, now teachers must contend with additional roles – teacher as resource manager, teacher as co-constructor of knowledge, and teacher as design consultant (Larson & Marsh, 2005).

As these shifts in the basic definition of literacy and literacy instructions have evolved, so has the perception that literacy is an integral component of all subject-based instruction. Although it can be argued that “Literacy across the curriculum is not a new idea” (Welford, 2003, p. 10), it remains evident in many schools that there is still work to do in this area. In elementary and primary classrooms, literacy instruction has typically been an ever-present focus. However, explicit instruction in literacy, including what has been defined as multi-literacies, is needed on a grander scale, interwoven into different subjects, themes, projects, and learning activities. Middle and secondary levels require literacy foci not only in the English or Language Arts department but also across subject areas and strategically taught throughout the timetable. “Often teachers assume that, by the time students have reached secondary schooling, they possess the knowledge and skills about literacy and language that are required to access the curriculum or students will acquire appropriate literacy practices without explicit teaching” (Wyatt-Smith & Cumming, 2003). However, this assumption is inconsistent with shifts in how literacy is viewed in our current educational landscape or greater society.
Increasingly Diverse Classrooms

It is no revelation to read, “Within any given inclusive classroom today, students’ level of competency, rates of learning, and degrees of motivation to acquire concepts and skills will vary” (Karten, 2011, p. 10). Practicing teachers would express that student diversity has always described classrooms, even prior to the systematic shift to inclusive learning environments. However, “Today’s classrooms are increasingly diverse. Students come from a variety of backgrounds and have a wide range of interests, preferences, learning strengths and needs” (Alberta Education, 2010, p. 3). The philosophical meta-shift to inclusive schools and classrooms has magnified and intensified the variance within the classroom, with an increasing number of individual student needs and challenges for the teacher to address. As a result, it should come as no surprise that, “teachers feel ill-prepared to deal with matters of diversity in their classrooms” (Beacham & Rouse, 2012, p. 3). As classrooms become increasingly more diverse, the challenges for individual teachers have intensified. As Schnorr and Davern (2005) contend, “the complexities and demands of orchestrating such environments with 20-30 students, each with his or her individual learning profile, cannot be overstated” (p. 494). With that overwhelming reality in mind, they offer hope by suggesting, “What may be perceived as impossible for an individual teacher may be quite possible for a team” (p. 494). Carroll (2009) echoes this sentiment:

The idea that a single teacher, working alone, can know and do everything to meet the diverse learning needs of 30 students every day throughout the school year has rarely worked, and it certainly will not meet the needs of learners in years to come (p. 13).

Our classrooms will continue to be ‘home’ for a growingly diverse group of students. The key to successful literacy instruction in this changed landscape depends on how we approach that challenge, from an organizational perspective and in how we view the role of the individual teacher.
The Teacher as a Critical Piece of a Transformed Puzzle

As stated in the introduction, the teacher is the critical piece within the multi-faceted puzzle that is effective literacy instruction. But this puzzle has transformed, with an expanded understanding of what constitutes literacy instruction and increasingly diverse classrooms. Trying to fit the traditional role of an isolated teacher into this new puzzle and expecting it to lead to every student achieving literacy success is no longer plausible. Buffum, Mattos and Weber (2012) further describe this dichotomy.

We know one thing for certain: we are never going to get there doing what we have always done. Our traditional school system was created in a time when the typical educator worked in a one-room schoolhouse and served as the only teacher for an entire town. Today it is virtually impossible for a single teacher to possess all the skills and knowledge necessary to meet the unique needs of every child in the classroom (p. 1).

Schools need to become places where teacher collaboration is no longer an option. If professional isolationism represents how the teacher puzzle piece was traditionally envisioned, this critical piece now needs to be viewed through the lens of teams working together to tackle the challenges and complexities related to literacy and students’ diversity.

Collaboration with a Focus on Students

Kouzes and Posner (2003) have described collaboration as a “social imperative” (p. 22) and DuFour and Fullan (2013) have argued, “Schools cannot achieve the fundamental purpose of learning for all if educators work in isolation (p. 14). The concept of teachers working together is obviously not new or something many educational thought-leaders see as a voluntary “nice to have if you can” occurrence in schools. Instead, we have argued that, within a school’s collaborative response model, when professional collaboration occurs, placing focus specifically on students can result in greater gains than simply focusing on teacher practices (Hewson & Adrian, 2013).
Coming together with a focus on instructional practices can be an easy, non-threatening first step for educators not accustomed to working collaboratively together. Teachers share literacy instructional strategies that work for them; practices they have abandoned; resources they have developed; and things they are planning to try with their students. However, this approach is unlikely to have meaningful impact on student learning or a teacher’s ability to most effectively address the literacy and diversity challenges we have described. Collaboration with a focus on students is needed.

Using common assessments to inform conversations, teachers engage in examining individual and groups of students within their collective cohort who are experiencing difficulty in the classroom. As professional trust is established, over time, in a culture that has a systematic response for students, teachers are able to express, “I don’t know what to do”, and receive the support of the collaborative team in relation to particular students. In isolation, teachers cannot be expected to know how to respond to every challenge related to the complexity of literacy instruction and multitude of student struggles.

As a team, teachers possess collective expertise that is truly greater than the sum of its parts. Students who are struggling to achieve literacy benchmarks are identified and hard questions are asked within the team. Although this may lead to difficult conversations that confront long-avoided instructional deficiencies in classrooms, they are easier to engage in when focused on students. We cannot expect teachers to have all the answers, considering the complexities we have described in relation to literacy and inclusion. However, we can expect and demand that teachers work together to identify and collectively respond with a plan of action when a student is not achieving.

**The Role of Informal Coaching**

Within this model of student-focused collaboration, the role of peer coaching and support takes an entirely different pathway. In schools that have established coaching roles for teachers, the entry point for these coaches to enter classrooms and work with teachers is through students. Students are identified with literacy struggles; potential instructional responses are identified; and classroom teachers initiate those responses. Coaches can help provide
support for teachers who may lack the background or instructional expertise to accomplish what is proposed. Rather than this being a mark of shame for teachers, it reinforces collaborative professional growth. Collaboration proceeds from the edifying philosophy that we are all learners who continue to grow professionally. At this point, formal or informal coaches, in the form of other teachers and administrators who are team members, help to provide support. Consider this simplistic scenario:

Teacher A: “Have you tried blogging with those four students who are having difficulty with their writing and are in need of further practice?”

Teacher B: “I’ve never tried blogging. I wouldn’t even know how to set it up!”

Principal: “I could arrange for Teacher A to be freed up for an afternoon next week to work with you on this.”

When approached with a focus on student and teacher growth, the attitude changes. Coaching for teachers who might have previously been difficult, because it was approached from an instructional deficit perspective, now positively centers on growing professionally to ensure student growth and learning. Such a positive focus offers coaches multiple opportunities to collaborate with the team and to determine “access points” for entering classrooms and working with teachers.

**Support for Student-Centered Collaboration**

Obviously, reimagining how teachers work in student-centered collaboration will not happen without school leadership. Structures and processes that establish a framework within which teachers can identify students and collectively determine instructional responses are needed. For school leaders, “it is disingenuous to assert that working together is an organizational priority and then do nothing to support it” (DuFour & Marzano, 2011, p. 73).
DuFour and Marzano (2011) go on to remind us that: One of the most persistent brutal facts in education is the disconnect between the proclaimed commitment to ensure all students learn and the lack of a thoughtful, coordinated, and systematic response when some students do not learn in spite of the best efforts of their individual classroom teacher. Despite all the talk of educational reform, what happens to a student when he or she struggles to acquire a skill or concept continues to depend almost exclusively on the teacher to whom that student is assigned (p. 173)?

It is educational negligence to continue trying to fit isolated teacher puzzle pieces into a literacy instruction puzzle that has obviously evolved and expanded. Leaders at all levels must continue to work to establish intentional student-centered collaboration in schools to support teachers and to ensure a systematic response with an end goal of literate students.

References


The French Leader In A Second Language Classroom

Natasha E. Feghali

Natasha E. Feghali is an artistic French Second Language Specialist educator in Windsor, Ontario. She currently teaches FSL at Eastwood P.S. and is also a DELF/DALF formatrice with the CIEP Paris, France and an AIM educator. Feghali has been teaching for six years (one of which was with the Ministère de l’Education National de France where she worked in Bordeaux, Aquitaine) at the primary level. Feghali has been creating alternative ways of learning a second language by the use of art, culture, and more. She has created well received workshops which have helped many educators yield positive and encouraging results in their second language classroom. She is also an award winning Freelance Journalist for the last 12 years with experience in arts, lifestyle and fashion journalism and most recently educational pedagogy. Feghali was born in Canada, lived in Bordeaux France and is a devout world traveler with a taste for the savoir faire of cosmopolitan living. Feghali’s passion for language, music and literature (she is fluent in French, Lebanese and Croatian) has encouraged her pursuit in life.

What could leadership look like in a French Second Language (FSL) classroom? Can we conceptualize a self-run program where students autonomously learn and create within their own capacities? Can we mirror what international schools are doing? In a deeper more philosophical sense, can we help students in an FSL environment become engines of their own learning? I have some thoughts.

In some cases, my role as a French Second Language teacher goes beyond the classroom. I educate in a multicultural community of students from Canadian-born to newcomer families. Working at Eastwood Public School in Windsor, Ontario, for the last three years has given me an opportunity to incorporate different aspects of the French language and culture into my classroom. When I began at this school, students loathed learning a second language. However, I have facilitated an environment that asks students to transform their once negative beliefs and embrace culture, FSL literacy, and a second language while accepting responsibility for their school community and their peers. More importantly, I have asked them to embrace a new mindset.
Parents and teachers alike could agree that providing collaborative spaces for students to transform themselves into positive global citizens, growing past passive membership in society, promotes the desire to crave knowledge, culture, and multiple language acquisition. Our goal is to help students become well-rounded global citizens. The simple act of showing interest towards diversity displays leadership and a desire to create a classroom that transcends and embraces one’s community and even the language being learned.

Teaching a second language can be difficult in the face of socio-economic issues, behavioural and learning disabilities, and the other challenges students may face before attending a second language classroom. Because learning a language takes persistence, time, and patience, it may seem a daunting task for both student and teacher – especially when the factors above are active. To help diminish these issues and to create a harmonious classroom that fosters leadership and individuality, direction must be cultivated in the hearts and minds of students.

The work is not all complex, however. In some ways, teaching second language literacy is actually as simple as helping students experience the authenticity of the language (being taught or discovered by the students) and helping students witness the world through the windows of their classroom (in this case French). To become a second language teacher, one needs personal tolerance and flexibility and must support collaborative learning. The kind of collaborative learning and inquiry-based tasks one must create within an FSL classroom needs to emphasize leadership, community, and promote school-wide participation in that second language.

As a teacher, I have witnessed students completely transform their thinking from ignorance and hesitation towards acceptance, role-model leadership, and school and community building for their peers. For some students, the change has been astounding. This classroom (and whole school) shift has lifted my FSL program to new heights. The student body has both adapted and embraced the thinking around the unique, high-level learning I ask of them daily. When my students come to class, they understand that we will engage in effective protocols, embedded daily practice, FSL literacy, collaboration, and self-
reflection. I believe this prescription promotes leadership and can change the way teaching and learning a second language is perceived.

One theory I have been working on all year in my intermediate FSL class is leadership through independent learning. The intermediate students in Grade Seven and Grade Eight are fully engaged, self-aware, and totally autonomous; and, they are HIGHLY motivated. In our classroom, change is desired and strongly valued as intermediate FSL learners engage in self-directed, collaborative acquisition of the French language and FSL literacy. In these grades, we have been using a bi-weekly learning cycle where students engage in intensive differentiated FSL curricula followed by autonomous, yet organized creativity. The language of “autonomous, yet organized creativity” stems from allowing students to learn and create their own language acquisition.

At the beginning of the school year, I worked to facilitate a shift towards a future, gradual release of responsibility from teacher to student. The ideas or modeling shared with students involved school norms, the significance of interpersonal relationships, student and peer learning, and school-wide leadership – I encouraged students to become creative autonomously. Modelling these ideals has encouraged my intermediate students to become self-sufficient and eager to learn on their own. As a teacher, I provided the framework while students planned, created, and demonstrated their learning for our school and community to see. Students were learning independently without being dependent on each other; however, collaboration ensued.

As a teacher, I allow students to create their learning in a safe space of exploration, cultural diversity, and positive growth around self-awareness for differentiated independence. For example, in a recent project titled, "The French Lesson," students worked autonomously to create a lesson in French they would teach to a primary grade. Students were given a framework to follow; however, the bulk of the assignment grew from their own criteria for success and student leadership with our youngest learners.

My ideology has been to create a leadership model where students become owners and creators of their second language. At times, it seems scary to give
students free range of their learning, the themes they want to discover, and the autonomy to work independently. At one point, I even questioned myself; however, I have learned that facilitating the idea of what they are going to research and study can become the catalyst for embracing French literacy, language, and culture. In other words, I provide the topics or project ideas and students work autonomously within a framework to create the learning and to own that organized creativity. Students learn at their own creative and differentiated pace, as they embrace their unique needs. As a teacher, I act only to facilitate and sustain the classroom learning community. In many ways, this process exemplifies a strong and effective gradual release of responsibility.

Learning through independence can build strong leadership with students in any subject matter as long as students are engaged and attached to their learning and their school environment. I believe this attitude towards learning demonstrates a belief that student development takes differentiated learning forms that suit and meet students’ second language classroom needs. The progressive role of forward-thinking second language teachers is to create a class climate receptive to individual students; that facilitate productive teamwork, diverse learning needs and styles; and that gradually releases responsibility in ways that move students towards second language independence. In such authentic learning, students engage creative control of their learning and work harmoniously with peers and teachers alike: the limits are endless. Although the subject matter is FSL, classroom beliefs fall around leadership, community building, peer mentoring, and sustainable changes around teaching and deeply learning a second language.
Simplify, Simplify: Engaging “Good Enough” Technology for Teaching

Ron Tyler is a Grade Three teacher at Ross Ford Elementary School

Introduction

*Wired* magazine published an article almost five years ago by Robert Capps titled, “The Good Enough Revolution: When Cheap and Simple Is Just Fine.” In this article, Capps argued that cheap, fast, simple tools were adequate for tasks, which previously had been fulfilled by more complex tools. Capps offered examples: despite small disadvantages, people were content to use inexpensive Flip cameras to take and upload pictures. Military drones were becoming common — used instead of more expensive manned planes. Net-based Skype was quickly supplanting more robust telecom services. Netbook sales were blooming, despite a lack of storage, processing power, and graphics capability. He saw these simple products as able to perform the tasks users needed to accomplish. The tools were, as he called them, ‘good enough’ for users. In Capps’ words, the “low end was riding high.”[1]

Capps made sense. In the face of elegance, sometimes “good enough” was simply “good enough.” My assertion here is that similar “good enough” tools are now available that will allow students, in the words of the new Alberta Education Learning and Technology Policy Framework, to use technology as they “engage with their learning” and “shift the focus from … content toward learning and the learner, building competencies and enabling the learner to create and share knowledge.”[2]

I am talking specifically about the iPad apps, Haiku Deck, ScreenChomp, ThingLink, and PicCollage. Students can use all these tools to create, and such creation strengthens their learning. In fact, the four apps I mention here are only a few of many more. These four apps can be used within any subject curriculum. To flesh out my examples, I will reference how students might use these apps within specific curriculum.
‘Good Enough’ Examples

Haiku Deck

This app allows students to create slide presentations on an iOS device or on a web browser. It provides templates for creating presentations. Because the app limits how much text can be put on a slide and text-formatting options are limited, students are forced to choose their words carefully and focus on what they are saying rather than how it “looks” on a slide. The app helps users find Creative Commons licensed images. Here is an example of a Grade Three student working with Haiku Deck on a Science topic with images taken by the student, plus Creative Commons images found by the app.[3] By using this app, the student is achieving the Alberta Science curriculum objective of “communicating observations and conclusions” while “expressing what he has learned.”[4]

ScreenChomp

This app allows students to create short lessons on an iOS device whiteboard where they demonstrate by drawing and giving oral directions. That’s all it does – nothing more. This app encourages students to engage language – which is a most distinctly human capability. Students love to use it. Here is an example of two Grade Three students showing their understanding of a math concept.[5] These students are achieving the Alberta Math curriculum objective of “communicating in order to learn and express their understanding.”[6] Here is an example of a Grade One student showing their understanding of a Language Arts concept.[7] This student is achieving the Alberta Language Arts curriculum objective of “generating ideas.”[8]

ThingLink

This app allows students to create online interactive images. While ThingLink creations can be infused with many types of rich media content, students can also be constrained to work simply with it by inserting text, pictures, and video taken by an iOS device or on a web browser. Here is an example of Grade Three students showing their understanding of a class concept studied during the recent Sochi Olympic Games.[9] These students are achieving the Alberta
Language Arts curriculum objectives of “presenting and enhancing” information as well as using “effective oral and visual communication.”

**PicCollage**

This app allows students to create picture collages on an iOS or Android device. The app allows importing pictures and text on a variety of canvas designs. Images can be rearranged simply by touching and dragging and can be resized by pinching. In this example, a Grade One student is showing her understanding of a science concept. The teacher involved with this example calls the app “kid-friendly” and adds, “I showed them how to use it once and they learned it right away. And the way they can teach each other is mind-blowing. I like how everything is on the mobile device. They take pictures with it and then use the app to create the collages.”

**Discussion: Exploring the Good Enough**

NYU professor, Clay Shirky, maintains “some content requires complexity in order to attain value … but it is the people who figure out how to work simply in the present, rather than the people who mastered the complexities of the past, who get to say what happens in the future.” I agree. Students can demonstrate deep understanding using simple tools.

If teachers are careful how assignments are structured, a plain Netbook (Chromebook) can accomplish all the required tasks; And can accomplish the tasks without (and this is crucial) diluting the learning objectives. A Netbook (Chromebook) cannot perform some tasks a MacBook Pro can perform, but teachers can structure assignments so more complex tools become irrelevant. Just as a lead pencil can accomplish all the tasks we assign it, we just do not assign it the task of replicating the Sistine Chapel’s ceiling. Similarly an iPad and the ThingLink app cannot produce the movie *Gravity*. But that should not matter. As teachers, we are allowing opportunities for our students to create interactive, multimedia projects that demonstrate understanding.
The world of science is full of “good enough” technologies. Prevention of blindness is as close as an easy, affordable, and portable mobile device and the Peek Vision system.[14] The Foldscope system uses a 50¢ optical microscope with over 2,000X magnification, sub-micron resolution (800nm), and is small enough to fit in a pocket.[15] A test for Parkinson’s disease is now available that can be administered remotely, takes less than 30 seconds, and is ultra low cost.[16]

Students using “good enough” technologies can achieve rigorous learning objectives. It’s time for more educators to follow Thoreau’s dictum in his book Walden - “Simplify, simplify”.

Notes


How to Teach Multi-Literacies

Shampa Biswas

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Abstract

Teaching multi-literacies has been crucial for preparing students to cope with the realities of the technological world. However, teacher education programs are not yet prepared to bridge the gap between traditional literacy and multi-literacies. This concept paper explores how teaching multi-literacies could shape future learning practices in schools. The integration of multi-literacies to classroom pedagogy would help raise standards and reduce literacy gaps in the classroom.

Teaching Multi-Literacies

New London Group (1996) coined the term “Multi-Literacies.” Multiple literacies imply multimodal ways of communication, which include communications between other languages, using language within different cultures, and an ability to understand technology and multimedia. Symbols, audios, videos, billboards, or emails/listserv, for example, are integrated to the social and education media. Applying multi-literacies to teaching offers a new classroom pedagogy that extends and helps manage classrooms.

One challenge for educators is to help students create a sustainable literacy development throughout schooling, so that students can develop strong literacy skills (Ajayi, 2011; Borsheim, et al. 2008; Cummins, et al. 2007). Multiple literacies (i.e., literacies and new literacies; see Table 1) require that students integrate technology-enhanced educational tools into their work. Ajayi
(2011) proposes that teacher education must prepare teachers to teach multi-literacies in their schools where there is a critical gap between multi-literacies and classroom pedagogy (Mills, 2009; Hesterman, 2013; Pennington, 2013). Given globalization and technological change, teaching multi-literacies is indispensable to literacy teaching and learning in the 21st century. This paper explores how teachers can teach multi-literacies in schools.

**Integrating Multi-Literacies in Teaching**

Newman (2002) suggests that teachers integrate four components of multi-literacies in teaching: (1) situated practice; (2) overt instruction; (3) critical framing; and (4) transformed action. **Situated practice** leads students towards meaningful learning by integrating primary knowledge. **Overt instruction** guides students to the systematic practices of learning processes with tools and techniques. **Critical framing** teaches students how to question diverse perceptions for better learning experiences. **Transformed action** teaches students to apply the lessons they learn to solve real-life problems. Teaching multi-literacies can inform, engage, and encourage students to embrace the multiplicity of the learning practices (New London Group, 1996). Teaching multi-literacies can also help teachers blend and apply the following four instructional processes of multi-literacies in the classroom ensuring successful teaching and advancing students’ learning processes.

**Situated Practice Ensures Meaningful Learning Practices Within a Community of Learners**

Teachers can motivate learners to discuss and share thoughts about classroom tasks within a small group of students in the classroom; and to connect with primary language, culture, and experiences in real life. Situated practice suggests using students’ life experiences to create meaningful classroom activities within a community of learners (New London Group, 1996; Jacob, 2012; Newman, 2002; Mills, 2009). For instance, online writing space helps both students and teachers promote online and offline collaboration. Wiki is a powerful example of how a collaborative platform and webpage can distribute information, save time, and manage teaching.
Teachers can incorporate Word Processors, Facebook, Twitter, Mobile Device, Wikis, Blogs, and Remixing (e.g., making machinima videos, making movie trailers, Fanfiction short movies, making music videos, creating fan art, political remix, etc.) in classrooms (Knobel & Lankshear, 2008; Lankshear & Knobel, 2011; Pennington, 2014). Their informal and formal learning practices with classmates, friends, and families allow them to practice and understand the value of classroom activities within a community of learners. Teachers can potentially help students understand and learn multiple perspectives of their classmates and teachers.

Overt Instruction Introduces Different Modes of Meaning to Learners

Teachers can provide systematic instructions about classroom tasks towards the explicit explanation of different modes of meaning by engaging them in overt instruction. Overt instruction helps learners focus on important features and gain experiences that allow them to understand systematic, analytic, and cognizant explanations of different modes of meaning (New London Group, 1996; Jacob, 2012; Newman, 2002; Mills, 2009; William, 2009). Interventions between teachers and students potentially create different meanings in the learning process (Ajayi, 2011). Teachers must utilize students’ prior technological skills in classroom activities.

Both teachers and students can explore possible pedagogies for classroom activities (Alexander, 2008). For instance, teachers can suggest that students use ‘graphical concept map features’ for creating an interactive concept-map of their classroom learning. Afterward, teachers can guide students to clarify what, why, and how these techniques improve their learning processes in a technology-integrated environment.

Critical Framing Encourages Learners to Create Own Meanings

Teaching critical framing guides students to derive their own meanings from classroom activities, which encourages them to think, understand, observe, interpret, negotiate, and apply their ideas (Evans, 2005) in problem-solving. Learners can improve their interpretation skills about specific design under the
diverse social and cultural context with thoughtful understanding (New London Group, 1996; Jacob, 2012; Newman, 2002; Mills, 2009). This practice helps students learn logical interpretation and meaningful expressions of different learning concepts. Egbert (2007) suggested that analyzing capacity of students can be built by simply asking, “Why?”

Teachers can teach students in ways that help them realize, comprehend, and respect diverse knowledge perspectives (i.e., different, dynamic, and conflicting ideas). Different prospects of critical framing are crucial for 21st century students to include their pleasure and experience from family, friends, popular culture, social media, and language in the process of making text. Teachers can encourage students to notice and analyze practices of communicating meaningful ideas in schools and communities.

**Transformed Practice Engages Learners to Apply Learned Lessons in Real Problem Solving**

Teachers can help students engage in reciprocal conversations that transfer ideas from one cultural situation to another. Transformed practice suggests how meaningful learning activities can design social futures (New London Group, 1996; Jacob, 2012; Newman, 2002; Kalantzis & Cope, 2008; Mills, 2009). Transformed practice might encourage students to connect their learning experiences with their daily classroom tasks. Technology-aided educational tools can be used to transform information into knowledge and fulfill diverse language learners’ styles and needs (Egbert, 2004). For instance, combining text with graphics, arts, music, and other visual elements in classroom activities can encourage students to comprehend the learning process (Ajayi, 2011).

**Conclusion**

The integration of teaching multi-literacies has a potential to adopt new ideas and overcome the limitations of traditional learning approaches in the 21st Century literacies. Teaching multi-literacies opens new pedagogical practices that create opportunities for future literacy teaching and learning. Multi-literacies can also help teachers provide equal access to learning for all students. Moreover, students learn to collaborate by sharing their thoughts with others
in online spaces where they can engage in different forms or modes (texts, video, image, rhymes, and poetry) of learning processes. Consequently, we can expect students to become more confident and knowledgeable in their learning context through participatory and collaborative practices.

<table>
<thead>
<tr>
<th>LITERACY</th>
<th>Attitude and awareness (e.g., attention, participation, collaboration, critical assumption, network awareness).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social recognized ways</td>
<td></td>
</tr>
<tr>
<td>Meaningful content</td>
<td>Generating, exchanging, and negotiating specific kind of meaning.</td>
</tr>
<tr>
<td>Encoded texts</td>
<td>Texts are captured, and transferable.</td>
</tr>
<tr>
<td>Participation in discourses</td>
<td>New literacies, Academic literacy, Bengali literacy, Home literacy, Facebook literacy, Digital literacy, Moving image literacy, Media literacy.</td>
</tr>
</tbody>
</table>

| NEW LITERACIES                | Writing source code, Operating digital operators for different applications (e.g., text, image, sound, animation, and communication function); Creating diverse range of meaningful artifacts, Reminaking, Machinima animations, Music remix practices, Anime music video (ANM) remixes. |
| New “technical stuff”         |                                                                                                             |
| New “ethos stuff”            | Mindset 1 (bookspace, textual order); Mindset 2 (digital media space); Web 1.0 (Britannica online, publishing); Web 2.0. (Flickr, Wikipedia, Wikis, Google, Facebook). |
| New literacies on the ground  | Video gaming, Collaborative writing (Wikis, Blogging, Fanfic writing, Manga producing), and Memeing.        |

| LEARNING and EDUCATION        | Educational engagement (i.e., using Schoology/ Engrade as teacher and student communication tools), Theory of new literacies, New possibilities of information and communication. |

Table 1: Elements of Multi-Literacies (literacy and new literacies)
References


Narratives of Youth Literacy: The Case of Prince Edward Island
Kate Tilleczek, PhD and Valerie Campbell, MA, University of Prince Edward Island

Abstract
This article examines social processes by which young people could better be supported in transitions to literacy. It includes setting a context in current literature, interviews with twenty-two youth, and interviews with twenty-two service providers. The results detail three emerging narratives of youth literacy: (1) a praxis narrative which is ecological and strength-based; (2) a youth literacy program narrative which is fragmented and in need of integration; and (3) narratives of youth transitions to literacy which detail a nuanced and balanced approach. Reading, writing, and numeracy are critical and necessary but not sufficient for youth literacy. Implications point to a transferrable, cross-provincial conversation in youth literacy based on this Prince Edward Island exploratory study.

Key words: youth literacy, youth narratives, youth transitions to literacy, Canadian youth literacy.

If a person has trouble with reading and writing you’re going to have a hard time on the job, big time; even the simplest job like McDonalds, you gotta read the screen to say, if it says no onions on that Big Mac, you can’t put onions on that Big Mac and if you can’t read, you don’t know what that sign says… I think it’s a big, big deal. As for relating to me, I’ve applied for different jobs where I’ve gone and been given an application that’s like 10 pages long and not understood a lot of the words on there so I couldn’t answer the questions, which maybe, if I knew, like if, somebody had said ‘you know this word means this’ Oh! Well I know the answer to that, that’s easy! (Inez).  

Literacy encompasses every aspect of teaching, not just language arts, reading and writing, but numeracy as well. (it is the) most important piece of the puzzle for students. It affects every aspect of your life (Steven).

2 All participants in this study have been given pseudonyms.
The latest Program for International Student Assessment (PISA) results were released in December, 2013. PISA provides an assessment of the learning progress of 15 year-old students in 74 education systems across the world. The numbers for Canada in reading assessment were significantly above the OECD average, with the exception of Prince Edward Island (PEI) which was at the OECD average (Brochu, Deussing, Houme, & Chuy, 2013). Although PEI’s reading average is slightly higher in 2012 than 2009, it is lower than 2006 and significantly lower than 2000 (Brochu et. al, 2013). Without hesitation, parents, public educators, industry, media representatives, and academics responded with a host of questions: What do PISA scores really mean? What is the character of literacy for PEI youth? Which young people struggle with literacy and how? How do these struggles last into their lives?

This article is based on an exploratory qualitative study designed to examine these questions. It gets beneath PISA scores, which measure only some important aspects of literacy and only for young people in school. The aim of the study was to examine social processes by which young people could better be supported in their pathways to literacy. The article includes a context from current literature. The experiences of young people in risk situations are often left out of research and little is known about PEI youth. Therefore, the study included individual interviews with twenty-two PEI youth who were under-represented in the research to date (only half of them were in school or work) and with twenty-two PEI service providers (both front-line and administrative personnel in education, industry, and community agencies).

Currently, 28,607 people between the ages of 15 and 29 live on Prince Edward Island (PEI Statistics Bureau, 2013). Emerging evidence suggests that PEI youth form a group in risk for difficulty in securing “decent” and meaningful work. Many are ill-prepared for the workforce due to early school leaving and their struggles with literacy (PEI Literacy Alliance, 2010; Timmons, 2005). Youth literacy research is a developing field directed toward ecological, strength-based, and culturally-grounded approaches and measurements.

There is currently an extensive research literature dealing with literacy and literacy programming in general. At the same time, there is a developed body of research dealing both with “youth-at-risk” and with conditions required to redress the risk factors faced by youth. It is at the intersection of these largely
separate fields of research that [youth literacy] literature … can be situated (Malcolmson, 2001, p.3).

Additionally, a more recent collection of work on adolescent literacy demonstrates that “more research is needed in adolescent literacy” (Christenbury, Bomer, & Smagorinsky, 2009, p.12). The authors further stated that, “Sadly, we are not implementing in the schools and our communities what researchers, including those who study their own practice, have found and also what merits further implementation and investigation” (p. 12). Youth literacy may be considered to shape “the core strategies by which adolescents learn to negotiate meaning and think critically about the texts in their lives, whether in the context of the school or the world outside of the school” (Vacca, 1998 cited in Malcolmson, 2001, p.6). The move from functional to contextual definitions is apparent with the addition of skills such as creativity and critical thinking. Malcolmson (2001, p.6) states, “An examination of promising practices in adolescent literacy amply demonstrates that it is precisely this aspect of quality literacy programming that can awaken interest in learning and creative expression amongst youth who have had negative experiences with schooling”. The Government of PEI’s Proceedings of the Minister’s Summit on Learning (2010) agrees by insisting on the context of 21st century learning skills needed for all young people – creativity, critical thinking, collaboration, and communication. Indeed, the Summit dialogue addressed a PEI focus of educating the whole student, more student-centred learning, and the creation of a “larger tool kit” for lifelong learning.

The literature simultaneously shows that the transitions of young people between secondary schools and the work force are becoming more complex in modern society (Furlong & Cartmel, 2007; Tilleczek, 2011). A current youth policy framework from the Government of Canada (Franke, 2010) demonstrates that sub-groups of young people in every Canadian province and territory are at risk for unsuccessful life transitions. Career services for Canadian youth are also fragmented and inadequate, particularly for those young people who have left school and/or struggle with literacy. For many youth from Prince Edward Island, low literacy levels are a barrier to success for these young people who should otherwise be poised to lead in PEI’s Prosperity Plan (Carroll, 2009; Chaulk, McQuaid, & Smith, 2002; McKenna & Penner,
2009; PEI Literacy Alliance, 2010). Indeed, almost 50% of PEI’s working population has less than a high school education (McKenna & Penner, 2009) and those in the 16-25 age categories scored poorly in literacy assessments (Lees, 2006). PEI was one of five Canadian provinces to demonstrate decreased reading scores between 2000 and 2012 as measured by PISA (Brochu et al., 2013).

Interpretive Framework
The Complex Cultural Nesting approach (Tilleczek, 2014; 2011) is an interpretive framework for studying youth literacy. Young people in Canada face many challenges and opportunities relating to literacy within and across interconnected spheres of life (home, school, work, family, and community). Young people and those closest to them are inseparable from, and nested within, cultures and contexts. Being a young person and becoming an adult is the result of many social forces that impinge upon the daily lives of young people. Tilleczek (2011) suggests that a focus on the tensions in the social processes of being, becoming, and belonging encapsulates and defines the bulk of research on youth. These fundamental social processes are part of critical developmental tasks of identity negotiation/construction and developing an autonomous sense of self (Eccles et al., 1993). In conjunction with their social class, minority group status, gender, and cultural experiences, young people form identities as learners, friends, family members, and community members. The move towards autonomy is traversed on physical, biological, cognitive, emotional, and social terrains (Lerner, 2006). Personal coping resources that help buffer ill effects of stress include a sense of autonomy, self-efficacy, competence, and confidence (Lord, Eccles, & McCarthy, 1994).

Bronfenbrenner's (1979) work has been influential in describing multiple social levels at which various risk or protective influences occur. These levels - chronosystem, macrosystem, mesosystem, and microsystem - are well known to researchers who describe the contexts within which young people develop. Youth adapt to role and setting changes such that young people making life transitions confront “ecological transitions” (1979, p.26) and “every transition is both a consequence and an instigator of developmental processes” (1979, p.27). The Complex Cultural Nesting approach moves beyond this descriptive model of ecological settings and towards a deeper sense by which social contexts are structurally (politically, economically, and socially) organized and the processes used to negotiate them. It draws upon Bronfenbrenner’s
Ecological model, the Developmental Contextual model (Lerner, 2002), the Socioeconomic Gradient and Income Inequality models (Keating and Hertzman, 1999; Wilkinson & Pickett, 2009), the Life Course model (Elder, 1995, 1997) and the various sociological lenses used in Institutional Ethnography (Smith, 2002) to ground social analysis in everyday lives of young people.

The Complex Cultural Nesting approach does not view development in the traditional sense in which young people are understood to move along easily determined linear pathways. Time and growth (physical, social, emotional, psychological, spiritual, academic) remain central aspects, but transitions are instead conceived as non-linear and dynamic (Furlong, Biggart, Cartmel, Sweeting, & West, 2003; Tilleczek, 2014; 2011) and nested within complex, dynamic cultures. This dynamic aspect makes it necessary to determine how and why young people live out their narratives, become resilient, and make life changes (Pais, 2003). Narratives and biographies are important in understanding youth and help to avoid the mistake of seeing all members of risk groups (e.g., youth struggling with literacy, in poverty, early school leavers, and so forth) as necessarily and simply “at-risk” without also seeing how they are at-risk, their potential for resilience (Unger, 2004), and the fluidity of risk situations for youth (Tilleczek et al., 2010). Research too often focuses on the pathological aspects of “at-risk” youth’s experiences, leaving little room for analysis of their resiliency (Schonert-Reichl, 2000; Tilleczek, 2011). Fine & Weis (1996, p.270) suggest that “simple stories of discrimination and victimization, with no evidence of resilience or agency, are seriously flawed and deceptively partial, and they deny the rich subjectivities of persons surviving amid horrific social circumstances”. Thus, personal stories may also generate narratives of “hope and possibility” (Smyth & Hattam, 2001, p. 412) that seldom emerge from pathological analyses. Whitewashing problems and inequalities, however, must also be avoided in balanced, critical analyses. The Complex Cultural Nesting approach calls for a strength-based, ecological, balanced and nuanced study of the everyday lives of young people who are striving towards literacy.
Research Methods

To follow rules-of-thumb of qualitative sampling of speaking with a range of people who have experienced the phenomenon under study (Morse, 2000) and to work toward saturation in the data, interviews with 44 key informants (22 service providers and 22 young people) were conducted to garner: 1) the meaning of literacy and its role in youth pathways; 2) a detailed discussion about the barriers and facilitators to youth pathways on PEI; and 3) a listing and description of programs and services currently in place for youth pathways to literacy, education, and employment on PEI. Service providers responded to our initial mapping of services that was generated through the literature. All research tools were created for use in this study including the socio-demographic Face Sheets, the interview questions for service providers and for youth, and the research ethics forms for informed consent of participants.3

Data Collection

The main inclusion criterion for selection of youth participants was age (18-27 years). The target age range for youth participants was 18-27 years for three reasons: a) to cover the age range of the various definitions of “youth” used in service and programming (the range is from 15 to 29 years); b) to address the age range that demonstrated the largest gap in the literature (young people who are no longer in secondary school); and c) to speak to young people for whom parental consent was not necessary according to ethical guidelines (over the age of 18 years). The inclusion criteria for service providers were both front line and administrative roles from across three sectors: education (secondary school, post-secondary school, PEI Department of Education); industry; and community agencies.

To address the qualitative sampling principle of sample variation (hearing a wide range of experiences in an exploratory qualitative study) both youth and service providers from various communities across PEI were identified through a snowball sampling technique. We sought to speak with service providers from front-line (n=15) and administrative (n=7) positions and youth from rural (n=13) and urban (n=9) communities. Youth participants were either currently taking part in youth programs or were outside of school, programs, and services. Service providers assisted in finding youth participants

3 Interested readers should contact the first author for access to the ethical and research tools
and/or recruitment posters were also placed in public areas such as youth centers, shelters, and food banks. This population of young people is difficult to find by virtue of their “in-between” status and lack of connection to education, social services, and programs. Their stories and perspectives on pathways to literacy are of value and often missing from research.

Service providers and administrators were contacted via emailed letter introducing the study and requesting their participation. This email contact was followed by direct telephone contact requesting an interview. Where youth participants were recruited through key informants, service providers assisting with recruitment were given an Information Letter regarding recruitment and a Letter of Introduction and Consent to be Contacted, which was passed on to prospective youth participants. Once youth contact information had been returned to the Project Manager, youth participants were contacted directly through their preferred method.

The service providers and youth were interviewed at a mutually agreed upon and convenient site: their places of work, UPEI, a local restaurant within their community, or community centres. Interviews lasted approximately 45-60 minutes and were audio-taped. The interview began with the completion of informed consent forms as approved by the UPEI Research Ethics Board to provide an overview of the study purpose. A brief socio-demographic Face Sheet was then presented to participants who recorded important variables for analysis (for instance, age, gender, position in the system, years of service in the system, cultural/ethnic identity, educational background, literacy level, etc.). The Face Sheet took approximately 15 minutes to complete. The interview ensued with a list of specific questions; each group of informants (youth, front-line service providers, and administrators) had a unique list but with some common questions. The service providers were also presented with the emerging map of the youth pathways system as produced from the literature and asked for comment (e.g., Did we miss anything? How are these services connected?).

Youth participants were provided with a $20 honorarium for their participation. Cash was placed into envelopes on which a formal receipt was attached. Once the participant had signed the receipt, they were given the envelope. This transaction took place after the informed consent forms were
signed. Participants who chose to withdraw from answering questions (none did) were also provided the honorarium. All participants were asked on the consent form to select the way they would like to receive the study findings. A summary of findings were provided to all who were interested in receiving them.

**Data Analysis**

Three types of analysis are provided in this paper: 1) The socio-demographic Face Sheet analysis to provide descriptive statistics about the samples and their perspectives on education, employment, and literacy; 2) The interview transcript notes analysis for direct quotations and themes; 3) The interview notes and Face Sheets, from the young people, were also analyzed as brief narratives with information and experiences derived across spheres of self, school, community, family, and ideas of literacy/the future. These brief stories were written out and mapped as visual transition narratives (See Tilleczek et al., 2010; Tilleczek, 2012) to provide a less fractured picture of their lives and pathways. In opposition to other forms of analysis, such as thematic or discourse, narrative analysis attempts to hold lives and experiences in context and avoid fragmenting or reducing them too much. Narrative and story allow examination of intersections of being and becoming as surmised from biography, memoir, life history, and other poetic/visual narrative forms (Tilleczek, 2014, 2011). Bruner (1986) has proposed narrative as a unique way of understanding people, their intentions, and the vicissitudes of their lives. Such forms of understanding play crucial roles in youth research. As Lawler (2002, p. 242) asserts, narrative research fully portrays . . . accounts which contain transformation (change over time), some kind of ‘action’ and characters, all of which are brought together within an overall ‘plot’—are a central means with which people connect together past and present, self and other.

Narrative analysis in this paper, therefore, strives for an ‘interpretation and reinterpretation of experience . . . to understand ‘lived time’ (Bruner, 2004, p. 692) and the complex cultural nests of these young people on their pathways to literacy.
Results

The Study Participants
The 22 service providers were given the opportunity to complete a Face Sheet prior to their interview on which to record socio-demographic information. The service providers were mostly female (n=17) and ranged in age from 20 to 60 years. Two were not born in Canada. The service providers’ places of work and positions in their jobs reflect the variation of the sample. For instance, they represented 19 different programs across three sectors: education (n=13), industry (n=3), and community (n=6). They also held a range of front-line (n=15) and administrative (n=7) positions, and ranged in their length of time in their current positions from less than one year to 20 years. They all had high school diplomas, 13 had college diplomas, and 6 had university degrees. It is worth noting that many of the service providers who were classified as administrators had also been (or were at the time of the interview) frontline workers.

Face Sheets were also completed by the young people to provide a range of information relating to their socio-demographic background. Of the 22 youth participants, 13 were male and nine were female. Most lived in a rural community (n=13) with nine living in either one of the two larger urban centres on PEI. Of the rural youth, nine were from the eastern and four were from the western regions of PEI. Those who “grew up” in a rural PEI community and attended school there were counted as rural even if they had recently moved in a larger urban centre. The young people ranged in age from 18 to 27 years with nine in the 18-20 range and 12 in the 21-27 range (one did not provide an age; the mean age of the others = 21.6 years). All youth participants were Canadian born. The majority of these young people were living with someone other than their parents (n=12) while eight lived at home and two lived alone. Three of the young people considered themselves to be homeless but were currently in a shelter or with friends. Only six of these 22 young people were employed at the time of the interview and five others were in a training program.

Eight of the young people had graduated from high school (two of them had a GED) and 12 had not yet graduated from high school even though they had
been through high school earlier in their lives (they left high school prior to graduation). Their interviews presented a useful retrospective perspective on high school experiences and their pathways since. Most (n=16) of the youth participants had attended one of the 10 PEI English high schools. Table 1 shows the highest grade attained by these young people and reports that four of the participants had not entered senior high school. Seven of these young people had so far been involved in academic upgrading and six reported having been identified with a special educational need in high school. Almost all reported familial support and encouragement for education (n=20) while only 12 reported consistent teacher support and encouragement.

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<thead>
<tr>
<th>Highest Grade</th>
<th>Frequency</th>
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<td>12</td>
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<td><strong>Total</strong></td>
<td><strong>22</strong></td>
<td><strong>100.0</strong></td>
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Table 1: Highest grade attained by youth participants

The young people were asked to provide their ratings of the importance of education to them, to their friends, and to their family. The mean responses (on a 4 point scale with 4 being “very important” and 1 being “not at all important”) were 3.57, 2.71, and 2.95, respectively. This suggests that these young people perceive that both they and their parents value education more than they do their friends. They also provided a mean score of 3.45 (on a 4 point scale) in response to the “importance of education in achieving their goals”. However, when asked to rate their perceived opportunities to gain more education on a 5-point scale (with 1 being “very poor” and 5 being “very good”), the mean score was 3.73, which suggests that these young people see only an average chance to improve their education at present.

The youth participants were also asked to self-rate a number of aspects of their reading and writing abilities to date. The mean self-reported reading and writing ability for the group was 3.86 and 3.41, respectively (on a 5 point scale with 1 being “very poor” and 5 being “very good”). It is worth noting the distribution in responses and the high proportion that feel that their abilities are currently “very poor” or “very good” (See Table 2 and Table 3). There is a
difference between their perceived abilities in reading and writing such that writing tends to be rated with less confidence.

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<td>10</td>
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<td>Total</td>
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Table 2: Self-reported reading ability of youth participants (1=very poor; 5=very good)

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<td>22.7</td>
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<td>Total</td>
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Table 3: Self-reported writing ability of youth participants (1=very poor; 5=very good)

The young people were also asked to rate their level of reading and writing outside school or work and their current attitudes towards reading and writing. Ten of them reported that they read at home “regularly” or “a lot” while five read “sometimes” and seven “rarely” or “never” read outside these contexts. Similarly, eight of the youth participants “never” or “rarely” write anything outside school or work, and 10 reported that they write “regularly” or “a lot” in these contexts. Three of the youth said that they write “sometimes”. Table 4 and Table 5 illustrate the range, percentages, and frequencies of responses. The mean rating for current attitude for reading was 3.95. The mean rating for current attitude toward writing was 3.36.
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<th>Rating</th>
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<td>4</td>
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<td>7</td>
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<td>Total</td>
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Table 4: Current attitude toward reading of youth participants (1=very negative; 5=very positive)

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<th>Rating</th>
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<td>9.1</td>
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<td>13.6</td>
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<tr>
<td>Total</td>
<td>22</td>
<td>100.0</td>
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Table 5: Current attitude toward writing of youth participants (1=very negative; 5=very positive)

Youth Literacy Program Mapping

There is programs out there, but if you don’t know about them, or if you don’t know somebody that went to it or done it, for me I found it was kind of difficult cause like for a while I needed to do something, and I wanted to do something but I didn’t know what and I didn’t know what was out there and I didn’t know there was funding and I didn’t know I’d qualify and things like that. But if people do want help there are lots of programs to help you, you just gotta look for it and you gotta go out and you gotta talk to somebody that even knows about it (Inez).

Internet searches for programs and initiatives on PEI specific to youth literacy were undertaken at the outset of the project but were largely unsuccessful at first (only six results were easily found - four national and two provincial). The searches led to websites for provincial and national organizations such as PEI Literacy Alliance and the National Adult Literacy Database. Searches for youth employment programs yielded more results (45 programs), but many of the programs identified were not specific to youth. When the 45 employment
programs were further examined, only 18 targeted youth and seven of these were for “students” only. Some searches yielded only names of programs and others referred only to organizations. The difficulty of finding information suggests that much of what is available is not easily discovered online by university researchers and could be more difficult still for young people.

Figure A1 illustrates the PEI youth literacy programs and initiatives that were identified in this initial search (Appendix A). Those delivered by educational institutions were from secondary and post-secondary institutions. Industry refers to initiatives carried out in the workplace or presented by organizations in the for-profit arena (e.g., construction or manufacturing). Workplace employment programs were not limited to youth but most include Literacy Essential Skills (LES) upgrading or Graduate Equivalent Diploma (GED) preparation. Community programs were those offered through private and non-governmental organizations. The government initiatives identified were umbrella programs, which provide funding for community and industry. These funding linkages are demonstrated on the map. Other linkages are depicted as defined by collaboration. For example, the PEI Department of Education works with industry partners to deliver the Apprenticeship Program.

Figure A2 illustrates the response of the service provider participants in viewing the initial map. They provided information on missing programs as well as programs that are no longer active. The difference between the two maps is significant, further indicating that programs and organizations are not always easy to find. Therefore, Figure A3 provides a comparison of the initial search results with the programmatic knowledge provided by the service providers (Appendix A for Figures 2 and 3). The yellow text boxes are those that were common in cases; the green text boxes are those mentioned by the service providers only; and the dotted red lines are the original search results. Particularly noteworthy is the wealth of knowledge service providers have about supports available in public education, community, and industry. This knowledge suggests the usefulness of ongoing cross-sector conversations, collaborations, and information sharing to support youth literacy. It is also clear from Figure 3 that PEI is engaged in numerous initiatives relating to youth pathways to literacy, education, and employment. The question relating
to access, use, and efficacy of each program or initiative is one for ongoing research.

Indeed, Figure A4 illustrates that the 22 young people interviewed were aware of only a handful of programs, most of which were community based (see Appendix A). This is not entirely surprising given the small sample size and mean age (21.6 years) of young people in this exploratory study. In Figure 4, the dark blue text boxes show the programs and initiatives that were identified by youth only \((n=11)\). The yellow text boxes show those identified by both youth and service providers \((n=17)\) and the dotted green lines illustrate those identified by service providers only \((n=69)\). The numbers beg the question as to how many other young people are aware of and/or can access the range of programs and initiatives designed for them. It is important to reiterate that qualitative research is dedicated to descriptions of social phenomenon and processes and not to statistical generalizability. Different groups of young people or service providers could be privy to different sets of programs. However, these figures do illustrate a disconnection between what is available and what is accessed by young people who have left high school and are seeking further literacy, education, or employment. Many young people interviewed simply did not know what programs (other than the GED which is widely advertised) are available to them. Indeed, many did not even know where to begin looking. Service providers also indicated that they have limited awareness of programs outside their own scope or geographical area.

*Last August we had a Youth Outreach Worker for this area, funding was provided through Services Canada, and it was a great resource for our youth. But the funding got cut last year so now, it’s like, where do they go and who do they reach out to? (Yvette).*

*Sometimes the supports that are out there are hard to access . . . it’s tough, I think it’s tough for people to maneuver all that, to understand what it is, to make the first step (Sylvia).*

One program that was widely acknowledged by both youth and service providers was the GED. This program is offered through a number of service providers, making it accessible. However, although most youth participants had some knowledge of this program, there was confusion as to how it actually worked, especially in terms of cost and time. Although they are two different programs, many participants refer to the College’s GED and “upgrading”
programs interchangeably. Given the relative knowledge of the program, the GED could better provide a linkage point to corollary literacy and employment services for young people who are no longer in public education or work. It is also important to note that all of the community/government programs discussed by both service providers and youth do not have a fee associated with them. Indeed, participants are, in some cases, paid to attend the program that breaks down persistent barriers of economic hardship for many of these young people.

Many initiatives available to youth on their pathways to employment are **passive**. They include career centres, internet job banks, and printed career information that require the participant to initiate contact and find a way through the procedures; something that can be done only if aware of the existence and ability to access and make use of such resources. For example, the Government of PEI has a job registry on its website, for temporary employment. It is relatively easy to find because there is a link called “Job Opportunities” on the home page. But it involves first finding the government website and determining the availability of resources. Indeed, if literacy is a barrier to entry and retention of employment for youth, the access point and programs are required to work at their current levels of literacy. Some more **active** programs actually put young people into the workforce if only for a limited time. These programs are often funded by various federal government initiatives and delivered through industry or community organizations. Known colloquially as “make work” projects, these short term opportunities are designed to provide job skills. However, none of the searches or interviews indicated the availability of any empirical information about what happens to participants at the end of the program. Only one service provider discussed following up with participants after three and six months. As seen in Figure A4, programs accessed by youth are those that are well established rather than the temporary, short-term initiatives. The system suffers from gaps in collaboration, access, lack of evaluation, passive outreach, and clear entry points. Supports are often fragmented, “yo-yo” and short-term, not well integrated, difficult to access, and not collaboratively managed.
Youth Literacy Narratives

Thematic analysis of the range of facilitators and barriers arising in the youth and service provider interviews are published elsewhere (see Tilleczek and Campbell, 2013). The narrative analysis, however, corresponds to those findings. The narratives illustrate that barriers coagulated around a complex spiral for young people excluded from both access and success in education and/or employment and are not continually gaining literacy skills necessary for adulthood. Familial socio-economic factors, academic struggles, and public education’s failure to collaboratively mitigate them are constant obstructions.

Nonetheless, important nuances appeared in the narrative analyses. Some young people also spoke about enjoying school, feeling relatively literate, and trying to negotiate their way towards full literacy with the assistance of solid programs. They possessed a good deal of “local knowledge,” insight, and reflection. They also demonstrated how literacy falters and affect further education and employment and that even successful completion of high school has not guaranteed them full literacy. The first interview question asked was, “Could you please tell me what was going on in your life when you left high school?” Whether they had graduated or left high school early, each young person began to unravel the past and present influences of family, teachers, schools, friends, and community on their experiences as it related to literacy, further education, or employment. One of the most striking and surprising findings is that it was difficult to envisage which young person struggled with literacy and which excelled. These fine distinctions in the narratives were not captured in the literature or in thematic analysis of the interviews.

For instance, young people who had left high school were not always those who uniformly disliked school or that felt themselves illiterate. For example, Mitchell⁴ (now aged 20) left school in Grade 11 to become a rock star after having read a biography of Axel Rose. He loved to learn but did not like schooling and finds himself today still reading for pleasure and loving to read, although he feels he could enhance his speaking and writing skills. He has been refused admission to a community college due to a lack of background preparation for the carpentry program in which he is interested. He has a plan to meet his goals but is frustrated by his lack of skills and abilities to navigate the system and make them happen.

⁴ All youth have been provided pseudonyms
Narrative analysis captured more of the context of experiences and influences of Mitchell and the other young participants. This section presents data from 10 of the 22 young people as visual narratives to illustrate influences of school/academics, family/friends, community, and self on literacy and the future. The 10 visual narratives have been selected from among the 22 youth participants to reflect differences, similarities, and nuances in life stories while taking gender, community, and high school experiences as points of variation. Five visual narratives presented are of young women and five are of young men. In each case, two graduated from high school and three did not. It is noteworthy that the stories of the young women who have left school early differ from each other in many ways. They are also both the same and different from the young women who have completed school and from the young men who have not.

The first three narratives are from Mary, Carmen, and Dawn who are three young women who left high school before graduation (Figures B1, B2 & B3 in Appendix B). Mary was a very good student with high grades. She is now 22 years old and considers herself to be literate and wishes to be a Journalist. She comes from a rural community with a supportive family but has had challenges with addictions and mental health over the course of her life. Carmen was also a straight-A student at school and considers herself to be literate at 27 years of age. Family issues resulted in her entering the foster care system and her school’s response to her pregnancy forced her to leave in Grade 8. She has plans and goals to become a precision machinist and has been waiting for two years to get into the GED program. Dawn is now 21 years of age and struggled with most of the courses in high school although she did well in mathematics. She is not confident, at present, with her literacy skills but is diligently working on her GED to become a child and youth worker. She hopes to return to her Aboriginal community and make a difference working with high-risk youth.

The next two narratives are of two young women who graduated from high school. These women have both similar and different experiences in school as did Mary, Carmen, and Dawn. For example, Inez is now 25 years old and remembers that she did well in school during her final years and was well supported by teachers and family. However, she did struggle in school in earlier years. She considers herself literate but has trouble comprehending some
documents and forms. She recently had a child and is taking time to upgrade her skills and make some life changes toward her goals, which include breaking from some of her more problematic friends. Mona is 20 years of age and has earned her Grade 12 Diploma but feels the need to upgrade her skills because she is unable to enter programs of her choice at college or university. She feels literate enough but knows that new skills will be needed for the next part of her journey into post-secondary school, which is intimidating, at present. Both Inez’s and Mona’s narratives are depicted in Figures B4 and B5 in Appendix B.

The following narratives portray the experiences of three young men who left school early: Mitchell, Jack, and Nate (see Figures B6, B7, & B8, Appendix B). Mitchell’s story was brought into focus in the introduction to this section. Jack is 27 years of age and remembers leaving high school after Grade 11 to care for an ailing parent, the other being absent. He is the eldest of four brothers and has been the primary caretaker in his home. He is applying for a program to help upgrade his skills, obtain a Grade 12 Diploma, and earn hours toward unemployment insurance benefits. He lives in an urban area but feels that PEI is a closed community and he does not know the right people to get a good job. Nate is 26 and he also left school in Grade 11. He did not like the large class sizes and struggled in many courses. He began using drugs at age 14 and developed an addiction. He currently lives in a city homeless shelter but came from a large, stressful family. He does not think that young people are interested in literacy, but rather just having “fun times”. He is currently enrolled in a GED program to upgrade his math skills for heavy machinery operations work. He is anxious to move ahead with his life and “not go down the same road” that he has in the past.

The final two narratives are of Tyler (20 years of age) and Fred (19 years of age) who both received their high school diplomas (Figures B9 & B10, Appendix B). Tyler attended college after high school but left during his first year because he was unsure of his career goals; he is currently “checking out” a performing arts program at college. He is articulate and feels he is literate but has no patience for reading. He has been diagnosed with Attention Deficit Disorder (ADD) but feels confident he will do well in his new home on PEI with the help of supportive friends with whom he lives. Fred also received his high school diploma and is hoping to join the Canadian Navy to further his education. He enjoyed elementary school but did ‘just enough to get by’ in high school and had no career guidance. As a result, he is unsure of his options but
is involved in a learning centre program to explore them. Although money is not a real issue for Fred, he still does not wish to take the wrong program and spend what he has saved for his education.

In summary, these ten narratives demonstrate the nuance and variability of the lives and pathways of these young people as they move toward further education, employment, and levels of literacy. Their stories suggest the complexity with which policies, programs, and supports need to be constructed. Differing ages and stages of struggle are obvious as are the specific spheres of life in which supports are required. Their lives suggest the need for ongoing and flexible supports as they move towards their goals and for service providers and educators to understand the lived complexity. Sharing these kinds of narratives across services could assist in better program and planning.

**Discussion**

If youth literacy is the cultural tool kit needed to move successfully towards adulthood, we must continue to examine how many Canadian young people are managing, what stands in their way, and how we can further assist them. These questions are especially crucial for young people currently in at-risk situations and between formal education and employment. Moreover, these questions will remain moving targets given the pace of change in modern youth pathways to adulthood.

This study suggests the usefulness of youth literacy praxis narratives, which theory and practice attend to the ecological and strength-based character of youth pathways. It also details a fragmented narrative about youth literacy programming. The narratives of youth transitions to literacy detail a nuanced understanding of what these young people are up against and how some young people continue to struggle. They run up against the same socioeconomic, educational, familial, and community factors well cited in the literature. They continue to navigate their pathways as best they can, but some require a good deal more assistance.

However, young people are not alone in risky situations that must be attended to. The narratives presented show how risk is a flexible and moving target. Even high school graduation or post-secondary enrolment does not end
youth’s literacy challenges as currently understood and defined. Indeed, a complex spiral can be discerned for some young people who are barred access and/or success in either education or employment. Without education, literacy falters and affects employment and has long-term consequences. The transitional narratives of the young participants further animate the complex ways in which different young people can be derailed from their successful pathways. It can be difficult to predict how these pathways will unfold. But, educators and service providers should be aware of the complexity and intricacy of the negotiations these young people are making as they move across their life course.

The Council of Atlantic Ministers of Education and Training’s Progress Report on Literacy (2010, p. 5) also addresses the need to target literacy initiatives at all stages of the life course with “increased awareness of the socio-economic benefits of improving literacy and essential skills”. They suggest targeting pre-service teacher training, curriculum development, assessment, and tracking literacy for diverse groups of students and engaging workplaces in further literacy program creation. However, young people who have left school prior to graduation and/or may not be employed become invisible in policy, practice, and research. A holistic youth literacy agenda does not yet appear in provincial policy frameworks. When it does appear, it is seen as an issue for “schools only” rather than through an understanding of the complex cultural nests of young people and their intersecting, complex, contemporary lives.

Malcolmson (2001) suggests that understanding youth pathways to literacy should begin in practice, then to evidence, and then to policy. However, the findings of this study suggest a need for praxis and inseparability of practice, evidence, and policy. Programs and practice must be grounded in evidence and policy must be set in response to this emerging field of youth literacy. Indeed, a cross-sector dialogue and knowledge sharing mobilization strategy is required on PEI and the process followed here for program mapping and speaking to youth and service providers is transferable to other provinces. At issue is how to best theorize, research, and practice youth literacy.

This study has identified conceptual, evidence-based, and programmatic gaps as a point of departure. Similar to Lees (2006), the PEI Literacy Alliance (2010), and Bell and O’Reilly (2008) calls for evidence on the efficacy of the programs that make up the current patchwork. This evidence must attend to
the nuance and complexity by which programming is established and operated and young people’s ability to access and make use of it given the complexity of their lives. Ongoing evidence-based programming could be enhanced by attending to the following: 1) Youth literacy is emerging as an ecological concept. What are the implications for the ways we measure, define, and build programs for youth literacy? What is the range and efficacy of programs and strategies in public schools dedicated to childhood and youth literacy in the fullest sense? What more must be in place (in schools, communities, and families) to assist all youth in their pathways to literacy?; 2) There is a need to continue to map the range of youth literacy programs across sectors to share that information for linkages and integrations. There is a need to continue to attend to program scope, longevity funding, gaps, and duplications; 3) Programs and services must be rigorously assessed to provide ongoing evidence-bases for practice. This knowledge must be shared with all literacy stakeholders. How could we better integrate and coordinate efforts to achieve youth literacy given the varying meanings and measures of literacy? Who should be doing this and how?

If it were simple and laid out so that I could see everything I had to do then it wouldn’t be that bad…but sorting things out and finding out what I need to do is ...it’s like untangling Christmas lights, I don’t mind putting them up but I don’t want to sit there and untangle them. (Mitchell)

References


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Appendix A: Programs

Figure A1
Figure A2
Figure A3
Figure A4
Appendix B: Visual Narratives

"Mary’s” Visual Transition Narrative
Age at time of interview = 22

**FAMILY & FRIENDS**

Mary’s mother has always been there for her, offering support and encouragement. She had a boyfriend whom she followed to Ontario; when that didn’t work out, a relative in Ontario took her in.

**SCHOOL & ACADEMICS**

Mary attended a number of different schools and spent almost a year in a treatment centre before high school; therefore she was older than many of her classmates when she did start. Her age and experiences created a gap between she and others in the school. She did well academically, with grades in the high 90’s, but the various stresses in her life caused her to fall behind. Teachers were very accommodating, maybe too much so.

**LITERACY & THE FUTURE**

Mary considers literacy to be her strong point. She is very articulate and would like to be a journalist some day.

**COMMUNITY**

Mary was raised in a rural community and currently lives in the city. She receives Financial Assistance which provides her with a bus pass, but transportation can still be an issue. She has participated in a number of programs on PEI including those offered by the Adventure Group and Addictions Services. Additionally, Mary has participated in addictions and education programs off-Island.

**SELF**

Addictions were a factor early in Mary’s life and she struggles to maintain her sobriety. She also has mental health issues which negatively impact her motivation and ability to ‘take things on’. She realizes now that although she believed herself to be very mature when she left school, she really was not ready, nor did she understand what she was giving up.

Figure B1
"Carmen’s” Visual Transition Narrative
Age at time of interview = 27

FAMILY & FRIENDS
Family issues resulted in Carmen living in foster care for some time. She felt that the foster family was more interested in the money than providing care. Her mother was, and still is, very supportive. Her boyfriend is also very encouraging and helps her study. She currently focuses on her family and does not have a wide circle of friends.

SCHOOL & ACADEMICS
Left school in grade 8 when pregnancy made it impossible for her to fit in her chair and school would not accommodate her needs. Was a straight A student until Grade 8. Always intended to finish school. Went to a high school with a day care but was not happy with the quality of care so left. Has written the GED exam once and passed 3 modules on the first try.

COMMUNITY
Carmen was living in a small rural community in another province when she became pregnant. The community and the school had negative attitudes toward teen pregnancy and were not at all supportive. She moved back to her home town to live with her mother. Carmen later moved to PEI and currently lives in an urban area where she has waited two years to get a seat in the Holland College GED program.

LITERACY & THE FUTURE
Literacy means “proper English” and she considers herself literate. She has plans to take a precision machinist program at Holland College and has already met with the instructor.

SELF
Carmen and her child live with Carmen’s boyfriend. She is very determined that she will succeed in getting her GED and moving on to college. Passing 3 modules on her first attempt at writing the GED was a big confidence booster. She has little money and needs to work long enough to become EI eligible.

Figure B2
**FAMILY & FRIENDS**
Dawn's mother feels school is important and has been supportive – reminds Dawn of her role in the community/family. Her older brother also encourages Dawn to continue with her education. She had issues with friends in school being overly dramatic, talking about each other. Her other friends were from other districts, many of them were younger, and not all of them stayed in school. When she left school, she moved in with a friend from another community.

**SCHOOL & ACADEMICS**
Dawn left school after completing Grade 11. She did well in math but struggled with other subjects, especially English. School was not a happy place, she felt that teachers were not interested in her – they never told her she wasn’t doing well yet she failed some courses. Dawn is currently working on her GED and has passed 3 modules. She will apply for the Child and Youth Care Worker program at Holland College when the GED is completed.

**LITERACY & THE FUTURE**
Dawn is not confident of her literacy skills, she rates her reading ability as ‘average’ and her writing ability as ‘poor’. She experiences difficulty filling out forms/applications and typically asks friends to help.

**COMMUNITY**
Dawn moved around quite a bit as a child but lived in Charlottetown when in high school. She has strong ties to her Aboriginal community. She has accessed programs through NCPEI, the Mi’kmaw Confederacy, and the Adventure Group.

**SELF**
Dawn is very goal-oriented, skills she attributes to programs she has taken. She would like eventually to work with high risk youth in her Aboriginal community. She cites lack of motivation as one reason for leaving school.

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**Figure B3**
"Inez’s” Visual Transition Narrative

Age at time of interview = 25

**SCHOOL & ACADEMICS**

Inez has a high school diploma although she did not have high grades. She was a straight A student until her final year. Teachers and guidance counselors were very helpful in supporting her through family/personal issues; she did not discuss careers, her slipping marks, or the future with them.

**FAMILY & FRIENDS**

Inez was raised in a lone parent home by a teen mom. Her mother and grand mother encouraged her to stay in school; a high school diploma is necessary to get a job. Family changes resulted in her moving into a place of her own while still in high school. Inez got involved with a ‘bad crowd’ and ‘did some things’. Since she straightened herself out, she no longer associates with her old friends.

**LITERACY & THE FUTURE**

Inez consider herself literate; she rates her reading as ‘very good’ and writing as ‘average’. She has had trouble completing applications – sometimes she didn’t understand all the words.

**COMMUNITY**

Inez lives in the same urban community where she was raised and went to school. She heard about Career Development Services (CDS) through friends and it very positive about her experiences there. Through CDS, she became a participant in a program at Career Bridges.

**SELF**

Inez recently had a baby and became unemployed. She is using this time to make some changes in her life, including trying to upgrade her education. She considers herself a bit of a loner, with few close friends. She had not plans on graduation day but thought things would just fall into place.

Figure B4
**“Mona’s” Visual Transition Narrative**

*Age at time of interview = 20*

**SCHOOL & ACADEMICS**
Mona has her grade 12 diploma. She switched from academic math because the non-academic was easier. She was more interested in making friends than school work. Looking back, she wishes she had understood the importance of education and tried harder. She struggled with some courses but really enjoyed peer helping class. Teachers were always very supportive.

**COMMUNITY**
Mona lives in a very rural area approximately 20 km from the nearest town. She recently obtained her driver’s license so transportation is less of an issue for her. She has not accessed any education or employment programs but is aware of what is offered through Holland College.

**LITERACY & THE FUTURE**
Literacy is not a barrier for Mona, she is confident in her ability to read and write. She hopes to upgrade her high school marks to attend college/university.

**FAMILY & FRIENDS**
Her parents separated when she was in high school. Her friends were very supportive. Since graduation, her family has encouraged her to go back to school.

**SELF**
Mona was interested in becoming a veterinarian but was unaware of the necessary qualifications for veterinary school. She also didn’t feel like she was smart enough when in high school. She lacks confidence in her math skills in particular. Going back to school is scary, but she is afraid that if she doesn’t she will be stuck in a job she doesn’t like.

*Figure B5*
“Mitchell’s” Visual Transition Narrative
Age at time of interview = 20

**SCHOOL & ACADEMICS**
School was something Mitchell had to do, not something he wanted to do. He attended two different high schools, and left in Grade 11. Mitchell didn’t feel comfortable sitting in a classroom all day but he enjoyed woodworking and art classes. He especially liked the creating part of art class but didn’t feel the need to study or read about it – just wanted to draw. He did well in school when he tried. He tried to go back to high school but didn’t feel comfortable being older than everyone else. He passed the GED tests on his first attempt without studying.

**FAMILY & FRIENDS**
Mitchell’s parents were always supportive and encouraged him to stay in school. Many of his friends are also musicians; they play and write songs together. Mitchell believes that young people don’t think much about the future, don’t understand the need to have goals beyond “the next 5 minutes”.

**COMMUNITY**
Mitchell moved from a rural community to an urban centre after leaving high school. He has heard some friends talking about skills programs but finds it very difficult to get information on what programs are available. He met with a counsellor at Holland College but did not find it helpful.

**LITERACY & THE FUTURE**
Literacy is the ability to read and write and interpret the meaning behind the reading. Considers himself literate, enjoys reading. Applied to Holland College’s carpentry program but was not accepted, will try again.

**SELF**
Mitchell recognizes that he is a “bit stubborn” and that may have played a role in his decision to leave school early (school gave him an ultimatum about attendance). He didn’t have any real understanding about how to achieve goals. He left school to be a rock star but didn’t have a plan, assumed it would just happen. Mitchell doesn’t trust that service providers actually see him as an individual; he feels that they tell everyone the same thing. Now he knows the necessity of having a plan, but feels overwhelmed and frustrated by the intricacies of working through the system to obtain his goals.
“Jack’s” Visual Transition Narrative

Age at time of interview = 27

SCHOOL & ACADEMICS
Jack completed grade 11. He left school multiple times to care for sick parent. Did well in some classes but missed a lot of time and felt he was just pushed through to stay with his age group. Teachers were understanding, maybe too much. Liked his classes although often bored. In elementary and junior high school he was classified as gifted.

FAMILY & FRIENDS
Jack is the oldest of four children, one parent is not around much and the other is terminally ill. Jack has been primary caretaker for his family.

LITERACY & THE FUTURE
Jack likes to read but not to write. He has no trouble filling out forms and considers himself literate. He is applying for a program that will provide job skills as well as EI eligible hours.

COMMUNITY
Jack is from an urban area and uses public transportation when he has enough money. He feels that PEI is a bit of a closed community and if you don’t have money and/or the right connections, it is hard to get anywhere.

SELF
Jack values education and wants to at least complete grade 12. He was diagnosed with ADD as well as a learning disorder, but was also noted as gifted in early years. His goal is to become a Conservation Officer.

Figure B7
“Nate’s” Visual Transition Narrative
Age at time of interview = 26

**SCHOOL & ACADEMICS**
Nate left high school in Grade 11. His father was a schoolteacher so he “couldn’t get away with nothing”. He attended a rural school with no place to go when skipping classes so he hung out in the parking lot or field. Nate was more interested in his friends/social life than school. He didn’t like the teachers, which is cited as his number one reason for leaving school. The only course he liked was welding. Unable to cope (focus) in large classes, Nate prefers a smaller class where more individual attention is available. He regrets leaving school and is currently working on GED.

**COMMUNITY**
Nate moved to the city from a rural community and is currently living in a homeless shelter and getting meals at the soup kitchen. Transportation was an issue in his rural community, especially as he has no driver’s license. He has accessed programs sponsored by Skills Link and Skills PEL.

**LITERACY & THE FUTURE**
Literacy is reading and writing but also focusing. Nate rates his reading ability as ‘poor’, but writing as ‘very good’. Nate believes young people don’t care about literacy, they just want to party. He is enrolled in a GED program to work on math skills so he can take a heavy equipment operator course.

**FAMILY & FRIENDS**
Nate comes from a large, stressful family. His mother is "sometimes" supportive. Nate’s older brothers were into drugs/alcohol so he decided to try it too – became instantly addicted. His friends in school were always skipping, so he went with them. Now that he is away from drugs, friends are not very helpful. They are still involved in that culture and don’t encourage him to stay sober.

**SELF**
Nate began using drugs/alcohol around age 14 and became addicted. At time of interview, he was 5 weeks drug free. In the past, when he enrolled in education or work programs it was only to get money for drugs; he had no interest in any other benefits. Nate doesn’t know how to handle money (budget). He is afraid of failure in his current program because if he fails, he will “lose out on everything” and be “back down the same road.”

**Figure B8**
“Tyler’s” Visual Transition Narrative

Age at time of interview = 20

SCHOOL & ACADEMICS

Tyler graduated from an Ontario high school and enrolled in a college program. He left college during his first year because he was not sure of his career goals. He took a civics/career course in grade 10 but the focus was on resume writing and interview skills, not interests or careers. Tyler enjoyed gym and drama classes but the best part of school for him was the social aspect.

COMMUNITY

Tyler was raised and went to school in a small city. He moved to a larger city when he left college, then came to PEI. He is still finding his way around and is unsure of what resources are available. He currently goes to the library to use the internet. He has also been to Holland College to get information about their new performing arts program.

LITERACY & THE FUTURE

Tyler considers himself literate and although he has no patience for reading, he expresses himself well in writing. He is very articulate. He would like to be involved in the performing arts and is checking out the program at Holland College.

FAMILY & FRIENDS

When Tyler left college, he was kicked out of his home. He couch surfed for a while and then moved to a larger city where a friend offered him a place to live. Now, in PEI, Tyler is making new friends who are encouraging and supportive.

SELF

Tyler has been diagnosed with ADD. He also has a very positive attitude and believes his life will change for the better. When he moved away from home he became involved in drugs and is working now to get completely off.

Figure B9
"Fred's" Visual Transition Narrative

Age at time of interview = 19

SCHOOL & ACADEMICS
Enjoyed school in elementary years but lost interest and just did enough work to get through with a Grade 12 diploma. Never spoke with guidance counsellor or teachers about the future or career options. He is hesitant to enrol in post secondary education, even though finances are not an issue, because he is not sure what he wants to do and doesn't want to spend the money unless he is sure of what he wants.

FAMILY & FRIENDS
Parents were always supportive and encouraged him to do well. Hanging out with friends is important – the social aspect of high school was the best part for him.

LITERACY & THE FUTURE
He has no problems with reading, verbal communication, or filling out applications. Recognizes that literacy is an issue for some Islanders. He is considering joining the Navy to get further education.

COMMUNITY
Lives in rural community but has a car so transportation is not an issue. Would like to stay in PEI but may have to leave to find work. Fred is currently participating in a program through the a regional learning centre.

SELF
Has no specific career goals or interest in any particular area of employment. He does know that he prefers working with his hands.

Figure B10
Thinking About Twitter-acy

Jim Parsons, PhD

Recently, I read an online interview with Rey Junco, associate professor at Purdue University and a faculty associate at the Berkman Center for Internet and Society at Harvard University. The interview led me to think further about how we might use Twitter in classrooms.

In this little “thinking about”, I hope to both engage those new to Twitter and those experienced with it. For those who know little about Twitter: What is it? How is it used? What does research say about its connection with literacy? For those experienced with Twitter: How can we use it educationally? In short, this “thinking about” is an invitation to share ideas about how Twitter might be used in classrooms?

What is Twitter?

Twitter is a social media/micro-blogging service that limits users to messaging using 140 characters or less - tweets. Twitter is based upon the logic that Twitter users can be involved in a “daylong brainstorming session”.

Should Twitter be a concern for teachers? Or, can Twitter help students develop social and academic skills? First, one must understand that Twitter is one of many social media, and social media are transforming traditional literacies in ways we do not yet understand. For example, in addition to the traditional literacy skills of creating and deciphering text, information literacy calls us to increase our abilities to locate, evaluate, and use information – all increasingly important as we rely more heavily on social media. All of us, including educators, rely on the Internet for our day-to-day information needs – buying and selling, gathering news and weather information, or communicating with friends and family. Social media allow users to gain and share information quickly.

But, there is also a dark side. Social media can be used for evil – for bullying or the spreading of false information or rumor. False (and potentially dangerous)
information is an obvious concern for educators and parents; and, we have seen its ugliness. Yet, as an educator, who uses the Internet daily and relies on its accuracy, I have not felt threatened by false or dangerous information. But, I don’t “play in the traffic”; that is, I typically only engage sites I find trustworthy.

It seems to be a ‘no-brainer’ to suggest that today’s learners – and that includes all of us – must develop skills to help us evaluate newer media. Sadly, this is an area that we often ignore in school, which leaves students learning new literacies informally outside of schools. Such learning, because it does not happen in schools, seems to run counter to school-based learning and children are left alone to learn and to shape their identities. As a parent, this seems risky.

Further, many academics wonder if condensed speech or “creative” spelling impedes learning or erodes literacy skills? Interestingly, however, research suggests that learning to use shortened text-speak actually might help develop stronger reading and writing skills. At issue is how we learn to process language. Research suggests that cognitive processing occurs whether one engages formal first languages (English or French) or text-speak (like Twitter). Becoming fluent in any language seems to enrich cognitive processes.

As well, some argue that using 140 characters or less must decrease students’ reading and thinking attention spans. Specifically, if children always receive information in little blips and clips, will they be ready for fuller information – let alone Shakespeare? Yet, despite concerns that Twitter impedes language development, evidence suggests that social media can enhance reading and writing skills. Most research suggests that students actually increase skills by shaping ideas into a 140-character template and that this template helps students become concise and thoughtful about what they write.

Here is where we must be realistic. For better or for worse, we have been thinking in sound (or word) bytes for a long time. Television commercials or contemporary music are cases in point. Even teachers have come to believe that they need to gain attention early by attracting listeners. For example, young teachers learn to use a “hook” with every lesson plan: “What ‘hook’ will help me gain the attention of my students?” Children are already engaged in
patterns of shortened language, and we have come to accept such patterns as normal and as part of how we think about learning. Certainly, social media are not the sole culprits.

**The Challenge**

How should caring teachers respond to Twitter in ways that might help students build literacy skills? Obviously, although there is early research on these newer social media, we have not yet engaged Twitter in powerful, educationally relevant ways that might further our educational goals. Perhaps it is time educators begin to creatively explore Twitter and build ideas that embrace Twitter more fully.

So, we ask: Who among Canadian teachers uses Twitter to build literacy? What ideas do you have for embracing social media in educationally relevant ways? What is it like to use Twitter and how can we introduce Twitter into classrooms so we might work with students in ways that explicitly build their literacy skills?

Plus, we need more research: How does informal learning shape students’ work? What do students learn by engaging and interacting with others on Twitter? What happens to students who use Twitter? What do they think of Twitter? How do they shape their tweets? Why do they post? What’s “in it” for them?

For teachers of literacy – and that is probably all of us – the question is how to bring students’ informal learning into formal school settings? And, when we do, how do we know our work helps? For us, this question is both educational and social – as if those two aspects can be separated. What do our students learn? How can they be better students? How can they become better friends by learning and interacting on Twitter?
Reference

A Foray into the iPad World

Jennifer Tonn

Jennifer Tonn lives in St Paul, Alberta, and has been teaching for eight years, four of those in Kindergarten. She is currently completing her Master’s in Education in language and literacy at the University of Alberta.

Do not confine your children to your own learning, for they were born in another time. —Chinese proverb

Our students are living in such a different world than we were when we attended school. I can remember that Grade Five was the first time I had a computer in my class. I recall my teacher being unhappy when my dad asked me at parent night what we did with the computer and I responded that I did not know. I really do not remember using that computer. I recall the teacher showing us something about the hardware inside, but what we students actually did with the computer I do not recall. It is truly a different world for students today.

This past year, I had the privilege of being a part of an Alberta Education learning initiative that provided a technology grant to my school, a rural elementary school in northeastern Alberta. This grant provided my school with funds for iPads as part of a province wide study on technology use in K–4 classrooms. The tech leader in our division had approached us in September and suggested that we apply for the grant and also recommended that we propose to get iPads in our classrooms. We decided to focus our grant proposal on having two class sets of iPads for the three Grade Three classes to share, as well as three iPads in each K–2 class to use as part of a learning centre. We hope to continue to increase the number of iPads in those centres as we get further into this project, but this was our original proposal. As we were drafting this proposal, I was looking for an independent action research project to do as part of my Master’s program at the University of Alberta. Being a part of this Alberta Education learning initiative seemed to fit well with a study of the use of iPads in my Kindergarten classroom. The original research question I posed was, “How can I use iPad technology to improve the
literacy abilities of my Kindergarten students, with a particular focus on writing and oral language abilities?"

Methodology

Bearne, Graham and Marsh (2007) write about the importance of considering your sample when completing an action research project. I focused my study on my students and my classroom. During the eight months of the study my kindergarten class consisted of 15–16 students between the ages of four and six. These students were all Cree students, with the majority living on nearby First Nations reserves. Six of the students were in the foster care system—some in group homes and others with extended family members. A few of the children had special needs, some academic and some behavioural. During the study, two students left my class and one new student arrived. My action research study officially began in November of 2011 and ended in June of 2012. Our school did not obtain the class set of iPads until January of 2012, but in the two months prior I had begun to introduce my students to a variety of iPad apps and their uses by using my own personal iPad. In order to aid my reflections, I collected samples of the children’s work and made careful observations of their interactions with the iPads and each other as they used the iPads during centre times. During this time, I also kept a personal journal of my observations and discussed the work with colleagues at school and with my university supervisor.

Observations

In looking at the data I began to think about what important themes were emerging from the collection of items I was gathering. I discussed with colleagues what they were observing in their classrooms. Furthermore, I read scholarly articles about technology use and early childhood pedagogy. I discovered three important themes as I looked at all the evidence from my first year with the iPads.

Technology

The first theme relates to the technology itself: Why should we use such technology in the classroom? Some may argue that introducing this technology
will force children to be dependent upon technology and will stop them from thinking for themselves. Most of my students do not have access to much technology at home. Technology is so prevalent in mainstream society today and its importance will continue to grow in the future—I think that it is important to expose students to a variety of technologies in school. In today’s world, checking the weather, finding what movies are playing or looking up a phone number are typical uses of technology by a majority of people. We do not know what the future holds in the way of technology for our students, but by teaching them to use the technology that exists in their lives today we better prepare them for the future. Richardson (2012) stated:

Let’s face it: For my children and for millions like them, life will be an open phone test. They are among the first generation that will carry access to the sum of human knowledge and literally billions of potential teachers in their pockets. They will use that access on a daily basis to connect, create and, most important, to learn in ways that most of us can scarcely imagine. Given that reality, shouldn’t we be teaching our students how to use mobile devices well?

Richardson goes on to state that we must now require more from our students. We must start asking questions that require synthesis and creativity, not just rote memorization. Ching et al (2006) stated, “They (young children) have been raised with these artifacts, so do they even conceive of a separate class of objects known as ‘technology’ and thus notice its unusual entry into alternative spaces? Perhaps this notion of ‘technology’ is a distinction that belongs to a previous generation, those of us still struggling with the ‘before’ and ‘after’ of the computer revolution” (p 367). I believe that this is true. The children in my Kindergarten class do not know that it is unusual to have iPads in the classroom. They are brand new to school and to the ways of schooling, so this is natural to them. My future classes are going to be even more unaware of the uniqueness of this inclusion of technology; they will be using it from day one or two in the classroom.

There are those who think that the iPad is only for fun and games and has no business in school. It is important that teachers make sure that our goal with iPads is about the teaching, not the technology. Sure, the children enjoy having
and playing with iPads for iPads are motivating and engaging; however, I came to realize that it was more important to look at what I wanted to accomplish to determine if the iPad was truly the best tool for the job. Fletcher (1996) made this analogy:

When you go to the hardware store to buy a drill, you do not actually want a drill, you want a hole, they do not sell holes at the hardware store, but they do sell drills, which are the technology used to make holes. We must not lose sight that technology for the most part is a tool and it should be used in applications which address educational concerns (Fletcher 1996, as cited in Okojie, Olinzock, and Okojie-Boulder 2006, 68).

It is not the iPad that we want in our classrooms; it is our students’ learning and growth. Too often, we forget this with technology in school. We allow these iPads, laptops and interactive whiteboards to override our good teaching. It often is not until much later, or after a great deal of reflection, that we realize the proper place of that technology and the best ways to use it to help our students learn. Perhaps this is common with new technologies. Kalantzis, Cope and Cloonan (2010) stated that in the rush to adopt new technology “we have seen new media brought into the classroom, as if the medium itself was the message” (p 62). They went on to caution that these new novelties “do not always involve pedagogical innovation” (p 63). This is what is most important: we must remember that we should always think about pedagogy. What knowledge do we want students to have? Will the technology aid in that learning? We must not continue to do the same old thing with these new technologies. I saw disheartening examples of this when I began to look at ways to incorporate the iPad into my classroom. Many teachers wrote on blogs or posted YouTube videos of their use of iPads. Often this technology was being used in their classrooms to complete worksheets or to reinforce basic skills. Sure, it is great to save a few trees, but, really, I wanted this to be more than that for my students. I wanted them to create something, to show me their deeper knowledge.

My school also had a more complex focus in mind; we had a goal. Our Grant Proposal stated that we planned to make use of the iPads in K–2 to improve reading, writing and oral language development. I began to brainstorm ways to
use the iPads for this purpose in my Kindergarten classroom. I really wanted the children to create something to share with me, with each other, and perhaps, with our school and the outside community. Looking back, this idea of creation and collaboration was another major theme that emerged in my first year of iPad use.

**Creation and Collaboration**

I started to explore ways to create with the iPad as soon as confirmation came that we would be getting the technology grant. I immediately bought a personal iPad in anticipation of the project and I began to bring it to the classroom to have the students get used to the device. Because this was my personal iPad, I was a little less free with this device and I allowed the children to use it only with me, in a centre, at this time.

My class received their three iPads right after Christmas holidays. Beginning the New Year with these iPads really let us start afresh and be innovative with the devices. One of the first apps I taught the children how to use was the app, *Puppet Pals* (Polished Play 2011). This app allows students to use cartoon images of stock characters to create a little play from a story. It records their voices and the movements of their characters, saves the video and plays it back. One of the best features is that it allows children to take photos of themselves or others to include in the story. Using the Smart Board, I showed the children how to take their photos and add them to the Puppet Pals video. I then began teaching them to use the app during our writing time. I started with the stronger students, because I knew they would pick it up quickly and then would be able to help the others. Although I eventually worked with all the students, many did not need much instruction from me because they had already been shown by some of the other students and had picked it up quickly. Sharing knowledge with each other was a strong motivator throughout this first year with the iPads. I often heard cries of: “Where did you find that?” or “How did you do that?” as children went to sit with classmates to see a new app or find the answer to a question. I was encouraged by their collaboration.

Our first whole-class project was a retelling one of their favourite stories, *Pete the Cat*, by Eric Litwin (2010). The students chose a variety of ways to retell the
story—puppets, drawings and acting it out. After I completed this project with them I reflected on a few things. First, I think that I controlled the project too much. I held the iPad while videoing (because it was my own, I was afraid they would drop it), so my voice was heard the loudest. Although I know the students knew the words, they were often not loud enough to be heard in the final versions. However, even though there are parts of this experience I would change, I still think it gave us a good starting point: it gave the students an idea of what they could do with the iPad, especially the video function, and it allowed me to see some of the limitations of the microphone, so I taught the students to use strong voices or use a microphone attachment.

My students were extremely motivated to create on the iPad after seeing some of their work with the whole class. After they created the *Pete the Cat* videos, I purchased a VGA adaptor to connect the iPad to our Smart Board. The children loved watching themselves on the Smart Board, and although some of them might have seemed embarrassed as the whole class was watching, the same students were often seen immediately afterwards making more videos.

The connection cord also allowed the children to see how different apps worked and gave us the opportunity to use some of the apps together. I showed them how to use certain skill-and-drill-type apps and how to work different parts of the iPad, such as how to focus the camera and change viewing options from front to back. The children enjoyed learning how to work the apps, and though I was glad they found them engaging, I still did not want this to be a focus of our use of the iPads. As I reflect back on the year, I am happy that though the apps served a function, my students still were more interested in producing their own creations with the iPads.

Not many of my students had access to this technology outside of school life, but the few who did were leaders in our class. If students had questions, they knew they could go to one another to find an answer rather than always looking to me. Upon reflection, I could see Vygotsky’s zone of proximal development in effect, which allows for “collaboration with more capable peers” (1978, p. 86). I could even see it within myself. Kedersha-McClay and Mackey (2009) wrote, “The zone of proximal development is multi-directional, with teachers helping students and students helping teachers, and everyone performing at a higher level than they could manage unassisted” (p. 112). We
often do not consider students more capable than ourselves, especially five-year-olds! But I soon learned who the more skilled students were with the iPads and I made use of them when I needed to. For example, one day one of my students locked the screen on an iPad. Although I knew how to fix it, I seemed unable to focus on it; my students were waiting for me to show them a video we had created and I was flustered by not being able to fix the screen. Finally, I used another of our iPads to show the video and handed the locked one over to one of my students and asked her to fix it. I knew she was capable. She was very good at replacing the pictures on the home screen and could do all sorts of things I had not yet explored. Better yet, she was teaching all these things to the other students as they worked together on the iPads.

Right from the beginning of our use of iPads, most of my students wanted to create. They often made videos of themselves singing, or retelling stories or rhymes. They learned how to use an app called Puppet Pals (Polished Play 2011), which allowed them to make little movies with characters, and every week they created more and more of them. This desire to create and share their creations grew as we continued to explore different ways to use the iPads and began to show the results to the whole class. Students loved having their videos shown to others on our Smart Board or on their iPad. I was very pleased with the direction the students had taken with their videos and creations. I found examples of students singing classroom songs on the videos, groups of children getting together to retell their favourite stories and one student retelling “Humpty Dumpty” in a mix of English and Cree. My students were doing just what our proposal had set out to accomplish. They were enhancing their creativity through beginning storytelling experiences, or at least retelling, practising reading, and reciting rhymes and songs. I could also see how this was improving their oral language skills.

I must caution, though, that these things did not come immediately to my students. I had to ensure that I was encouraging, supporting and sharing their creations.

The creations my students made on the class iPads were very revealing. Weekly, I would download and watch the new videos, pictures and other creations they had made that week. I started doing this as a reflection for
myself as part of my action research study, but it became so invaluable to me as a teacher that I am certain I will continue to make this a priority in my future years with the iPads. I could see my students’ interactions and collaborations with others; I could see who repeatedly made the same types of videos and also who did not often create videos or take pictures. These videos also allowed me to see growth in the language abilities of students, one of the main focuses of my action research study.

Play

The final theme I would like to reflect upon in this article came as a result of the limited number of iPads in the classroom. One of the difficulties I found this first year was that the number of iPads in the classroom did not allow for more class projects that everyone could work on at the same time. I began to worry that we were not doing enough with the technology. I began to worry that too much free time or play was not making the best use of the technology. I was often concerned that I was not doing enough, not doing the right things, and allowing too much freedom during play centre time. This concept is still hard for me to accept, but I needed to realize that, especially in Kindergarten, some play is just fine. When I look at what my students were doing when they “played” with the iPads I see many examples of real learning. This is true of all play. Brown and Vaughan (2010) have studied play in a variety of situations and found that “animals that play a lot quickly learn how to navigate their world and adapt to it. In short, they are smarter” (p. 33). In Kindergarten, play is often pushed out by more formal learning. Thankfully, I teach in a full-day Kindergarten so I do not always feel the same time pressures that other teachers might. My students still have time for play. I can see the benefits of it; play gives them a chance to learn to interact with others, learn to share and take turns, and to learn concepts through their play.

As I reflect upon this first teaching experience with the iPads, I think that the way the iPads were presented encouraged the children to want to create something with them. We had no game apps. Most of our apps had some educational purpose, if only for skill and drill. At first, students played with those skill-and-drill apps, but I believe they began to find them too easy so they started exploring more difficult apps. Most of the children wanted to explore music making with the Garage Band app or making a video or taking pictures.
Albers and Harste (2007) stated, “Classroom spaces that encourage multimodality allow students across ages to learn as well as play with a range of media. With play comes invention. Students are inventing new uses for common materials like photos, video, and visual texts” (p. 15). I felt so much better after reading this. Much of the children’s “play” with the iPads was actually invention. They were inventing ways of videoing each other and themselves, and practising uses for the iPads that I had not considered.

One great example of their play and creation occurred the day a student came to me with a concern. We had purchased the interactive book app Sesame Workshop Apps (2011) for the story, *The Monster at the End of This Book* (Stone 1971). The children loved the app, which not only tells the story but also allows children to interact with the character and make decisions about how the story will proceed. The students often listened to this app while paging through our paper copy of the book. After doing this, two of my girls had wanted to find the app for another well-loved story. One of them brought me an iPad and asked where the *Down by the Bay* (Raffi, 1999) app was. After double-checking to make sure one had not actually been created in the app store, I explained that not all books have apps. Nonchalantly, I suggested that she and her friend make one. I walked away without giving this anymore thought because a number of students needed my attention elsewhere. A few minutes later, the noise level in the room started to rise. As many teachers can understand, I started to worry that the noise meant the students were off task and out of control. I tried to calm myself—this was play centre time, after all—and began to attend to the noises I heard. One of the goals our school had for the iPads was to improve the oral language skills of our K–2 students. I needed to reflect: was the noise I heard part of that learning with the iPads? I also tried to remember that an “emphasis on quietness … does not take into account the valuable role that talk plays in the social process of learning” (Larson, 1999, p. 228). I paused and looked around the room. There were the usual play centres and their inherent noise, three children splashing in the water table and two boys building towers out of blocks on the carpet. But, something was different. The noise I heard came from the tables. There they were, those two girls, one holding the book and singing “Down by the Bay” and the other videoing the action. They were creating their own book app! Not only that, their idea had spurred another two girls to do the same with another favourite book and from
their corner of the room I could hear the sound of *Caps for Sale* (Slobodkina, 1987).

This was a normal day of play centre time in my Kindergarten classroom, but the difference was that the amount of literacy-based activities had increased. The result of one child's wish for a *Down by the Bay* app resulted in four students working—or, as I’m sure they saw it, playing—on two iPads to recreate their favourite stories for other students to view and enjoy.

**Conclusions**

As I look back on my first year with iPads and look forward to discussing ideas with fellow teachers, I try to decide what was most valuable to me. I could talk about my students' favourite apps or the ones I found most valuable as a teacher, but I think I would have to say that the process of action research and the discoveries I made about the students were what I enjoyed most. Students were excited to create something to share with others, and these creations, often made during “play” time, told me so much about them and their literacy experiences. My original research questions were answered; in addition, I found that the use of the iPads was beneficial for the beginning writing experiences. Moreover, I found that students' language development was the greatest benefit of using iPad technology. Is this because of the easy-to-use video function? Is it because of easy playback for children, allowing them to revise their work and share with others? These are questions I will continue to ponder in my future years of using iPads in the Kindergarten classroom. By examining what my students created and reflecting on ways of encouraging their growth, I feel I made a good start during this first year of iPad use. However, I know that as time goes on I will continue to reflect upon and tweak the learning experiences I can offer to my students with this tool.

*If we teach today as we taught yesterday, we rob our children of tomorrow.*

—John Dewey
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Expanding Literacy: Using Systems Thinking as a Core Strategy for Student Learning in a “Global Issues” Classroom

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Abstract
This paper relies on anecdotal observations and does not review the literature on Systems Thinking (ST). Having taught the earlier “World Issues” course with its emphasis on the Cold War and social, political, and economic theories for fourteen years, and now having switched to the new course “Global Issues: Citizenship and Sustainability” for these past two years, I explored the potential that ST would have on student attitudes, inquiries, and action projects.

The Impact of Using Systems Thinking as a Core Strategy for Student Learning in a “Global Issues: Citizenship and Sustainability” Classroom

I began with the question, “How does focusing on Systems Thinking (ST) change the classroom ‘conversation’ vis-à-vis global issues and sustainability, and what impact, if any, does it appear to have on the students’ perception of what it means to be a transformative citizen?” My goal was to provide students with strategies and tools to take on the intractable issues that threaten to overwhelm them, thereby helping them take that important step from being concerned citizens to becoming transformative citizens.

I wondered whether a focus on ST would mean that inquiry projects would be more solution oriented and less a list of information. Students would demonstrate their understanding of issues by creating a narrative in their own voice, charting long-term consequences, understanding causality, and identifying mental models that needed to be changed in order for change to happen. Changing their minds, they would change the world. Consequently,

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their Take Action Projects would indicate an understanding of the macrocosm, but would identify leverage points in the microcosm.

With the shift from World Issues and its focus on the Cold War and why things are the way they are, to Global Issues and its focus on how do we change the way things are, students require effective strategies to address the issues of sustainability and citizenship.

**Strategies**

In the first four weeks of class, I introduced two core concepts, the first being eco-literacy, which segues nicely into the second, systems thinking. To get the students thinking about sustainability in a new way, I introduced the nested diagram of planet, people, and profit to replace the Venn diagram that gives equal weight to each of the three. Because students read the Venn diagram as suggesting that the economy has an equal value to the environment, they often do not grasp the urgency of the situation in which there is no economy without an environment.

We began the year with an inquiry project in the area of Peace and Conflict with Syria as the focus. At the beginning of the semester, the news was full of reports out of the Middle East, and it captured the interest of the majority of the class. Keeping the nested diagram in the centre of our discussion, we started to examine the issues. Students made multiple connections to other areas of inquiry, and we occasionally needed a class to explore sidebar issues such as the correlation between food security and civil unrest.

**Process**

We used this first group inquiry to model what the future inquiries, which would be self-directed, would look like. Students prepared a proposal, followed by a detailed plan, with an annotated works cited, and concluded with the final inquiry. The first presentation was submitted in a paper format, with later ones being submitted in a lesson, a power point, a discussion, or a Prezi. At various points in the process, students discussed their research with the class.

While students began their inquiry on Syria, I taught a series of mini-lessons on ST. We applied these strategies to our case study and, in general, this is what happened:
1. We first had to tell the story. I asked them to tell the story in their own voice. If they could discuss the issue without using extensive quotes from the news sources, I hoped that they would have a better understanding of the big picture. The story became increasingly complex during our discussions, with students bringing in news clips about –

a. regional allies and enemies  
b. internal groups and power distribution  
c. ideological and economic links  
d. international actions or non-actions  
e. refugees and the international response or non-response  
f. further degradation of an already stressed environment

Some students relished this kind of complexity, but for others Syria was a reality that they could not get their heads around. Their world was just not big enough yet. Therefore, the challenge became to show how the Syrian conflict is part of a system that is linked to our lives. One way of doing that is showing how decisions made by our government, or past governments, have ramifications for Syrians. Most students started with the question “How does that affect me?” We turned that on its head to “How does what I do affect what happens in Syria?” Instead of being reactive, we learned to be proactive. In this way, various issues arose such as food security, arms sales, and geopolitical posturing.

2. We then identified concrete and abstract variables. Alawites, Shia, Sunni, Hezbollah, and other groups were concrete variables, as were alliances with Russia and Iran. Other variables such as oppression and food security were more abstract and challenging for students. Once students began to see the parts of the system, they also began to take a big step toward asking important questions. Nuance is hard for most people, and young people especially tend to see the world in binary ways.

3. I then spent some time showing students how to plot Behaviour Over Time Graphs (BOTGs) using four archetypal patterns:
a. Tragedy of the Commons. This is a good example for showing how a civil war is, for the planet, a tragedy of the commons. However, it is also a tragedy of the commons vis-à-vis infrastructure, the future of the youth, the destruction of culture – see Aleppo for a devastating example.

b. Fixes that Fail. Foreign involvement, according to some perspectives, has provided opportunities for rebel forces such as Al Qaida to arm and to enter, all in the attempt to end the war, and has prolonged the war.

c. Eroding Goals. At the outset of the conflict, western nations had high expectations to end the conflict quickly, but failed to take the necessary steps to meet those expectations. As it became more obvious that the original goals were not going to be met, new goals were set, which were also not met, and so on. It became a zero sum game.

d. Shifting the Burden. Students followed the news and tracked how countries played the blame game, but more importantly, they saw that by treating symptoms and not the causes, the intensity of the problem increased and more and more refugees poured out into neighbouring countries, creating new sources of instability.

The main objective in using archetypes was to identify a trend, and whether or not that trend would be sustainable. If not, what would be the consequences of a “sustainability gap”?

4. Our next step, once we had started to see the causality of these sustainability gaps, was to learn how to create Causal Loop Diagrams (CLDs). These enabled the students to visualize the causal chain of two types of behaviours: the vicious cycle and the virtuous cycle. We then discussed reinforcing loops and balancing loops, and the impact of delayed reaction in a cycle. We “visualized” the vicious feedback loops, showing arms coming into a country and their impact on stability in the region. We examined the causality linking the Arab Spring, crop failure in Russia, rising wheat prices in the Middle East, and the growing civic frustration with corruption.
5. However, the most popular exercise for students was to visualize the issues using an Iceberg model. Here the premise is that what is visible are the events, to which we react. Just below the surface are patterns, to which we adapt. A bit deeper are structures that cause the patterns to form, and here we respond creatively by finding ways to make the structures work. It is, however, at the base, where our mental models rest, that we can generate real change. For many students, it was that epiphany that said, “Humans created these systems – they can be changed.” This model highlights the mental models that allow these structures to remain and create patterns that perpetuate events. If we can change these mental models – i.e., change minds – we can change the world.

An interesting discussion that came out of this group inquiry was a cynical observation concerning the existence of the nation state. Since this course focuses on global citizenship, we needed to understand what that meant. We discovered that weapons, resources, monies, and other goods, including the Internet, have little respect for borders, but at the same time that borders have little respect for people. The students noted that our borders are very porous when it comes to profit, but very tight when it comes to people. They asked, “Why does Sweden, a country of nine million, take in more refugees from the camps than any other western nation?” All of this led to discussions of nationalism, exploitation, and, finally, the education system that, on one hand teaches us to be proud Canadians, and on the other hand wants to create global citizens. One student commented that “maybe the government just wants us to be good global citizens so that we are better equipped to go over there and take their stuff, while keeping them out of our country.”

My ultimate goal was to move students from cynicism to action, and to show them how they might leverage these issues. For example, one student returned from volunteering at Winnipeg Harvest with the observation that basically the poor were “screwed” because the Band-Aid was just getting bigger, which simply meant that the wound was getting bigger. She understood that we needed to heal the wound in order to get rid of the bandage, but that the bandage itself was not helping the healing process at all. She was not about to give up her volunteering, but she recognized that volunteering alone would not remedy the issue of food security in Winnipeg.
By the end of this first inquiry (4 weeks), the students had gone through the process several times. I found it useful to have this pattern of inquiry available to them because it could be used whenever we had a guest speaker, I showed a video, or I gave them an article to assess. If they could tell the story, chart the trends, visualize the problems, and identify the mindset that needed changing, they were well on their way to becoming transformative citizens (see Appendix).

**Indicators of Success or Failure**

One of the ironies of using ST as a focus was revealed in the Take Action Project (TAP) of a group of boys who explored the legalization of marijuana. When I jokingly told them that, of course, the government wants to legalize marijuana – what better way to keep young men sedated and unwilling and unable to change the status quo – they sulked and told the class that Mr. Paetkau thought that they were shallow and insignificant. However, they went to great lengths in their presentations to show how behaviour by law enforcement over time had led to the USA being one of the most punitive countries in the world, to demonstrate that the cultivation of hemp and marijuana (they had some trouble distinguishing between the two plants) would have positive effects on the planet, and to explain how the vicious feedback loop of restricted use and criminality was the result of a structure that kept these destructive patterns in perpetual motion. Thus, even if their response in the end was not generative, it certainly was creative.

This past year, five of the 22 students earned less than 35% in the course and did not get their credit. (They also failed in at least two other subjects that semester.) On the other hand, they participated in all classroom discussions with enthusiasm, and seemed to accept the fact that they did not earn a credit with great equanimity. My hope, of course, had been that with this new push toward engagement and inquiry-based learning, I would create a tidal wave that would sweep them all through the semester to success. After all, it is a citizenship course and it is one thing to fail a course, but to fail as a citizen is a harsh condemnation.

The last two months of the semester were largely spent on research, planning and executing the TAPs. I met with students individually to review their research, or have them do mini-presentations for me. At the end of the semester, I asked students to assess the following aspects, and some chose to
use ST to break down some elements of the question. Here are the variables (drivers) that they came up with:

If you were the teacher of this class, how would you address the following elements?:

a. managing time
b. motivating the learner
c. communicating information
d. evaluating the work
e. choosing the areas of inquiry
f. changing people's attitudes towards the planet, people, and profit

Interestingly, the response showed that interest was high when I was “chalk talking” the students through the Syrian conflict. There was a great deal of anxiety when I did not give them questions to answer, but asked them to submit questions that they thought important enough to merit an answer. Therefore, step one, telling the story, was much harder if they had to look for the questions on their own, than if I showed them which questions they might ask.

**Impact of ST on TAPs**

I had a wide range of projects and attempted projects. When it came time to move from theory to implementation (praxis), the students found a myriad of obstacles awaiting them. School timetables, contacting the right people, and getting people to listen were all real-life experiences that led students to understand why fundraisers are so popular. They are quick, focused, and have an immediate “feel good” effect.

One student chose to work on her own. She wanted to work toward eliminating cultural discrimination, and her action was to create a “forum theatre” piece with some friends who were not in the class. She spent a good deal of time researching the topic and met with people from NEEDS (Newcomer Employment Education Development Services) to discuss community issues. In her final report, she used ST to try to address the mental models that she personally needed to change. She staged presentations of her
workshop during lunch hours and later at a UNESCO-associated schools workshop. ST gave her a clear understanding of the mental models that form the structures that create the patterns that cause the effects we see every day in our city.

Another group of students worked with counsellors from Klinic, a downtown community health outreach service, on issues surrounding human trafficking and the sex trade. Using ST to look at the situation from beginning to end helped them to see the nuances: how poverty, addiction, powerlessness, gender identity issues, and legal systems all end up creating modern-day slavery. Their leverage point was to attempt to educate the young men and women of their community. They commented, “People just do not know this exists, or they do not believe it exists, but if we can show them it exists, then empathy will force them to join forces with those who are trying to change the situation.”

Overall, I noticed a correlation between their ST analysis of the issue that their TAP was addressing (I had required that they provide a 6-step analysis of the issue) and the action that they decided to take. In the past, many of the actions had revolved around fundraising – War Child, Ladybug Foundation, Siloam Mission – but this year there was not a single fundraising activity. There were sports equipment drives and Koats for Kids, but in each case it was the educational component of their praxis that came out on top. Awareness building linked to changing mental models. I believe that the tendency this year not to do fundraising and to do more awareness building in their community indicates a success. Education is not as sexy as raising a lot of money, but in Westheimer’s model of citizenship it is a more productive model (Westheimer & Kahne, 2004). Westheimer saw gradations of citizenship beginning with those citizens who pay their taxes and pick up litter, to those who donate and volunteer, to those active citizens who find ways to change the systems that are at the root of the problem. It is wonderful that a child’s fundraising could provide more beds for people in a homeless shelter, but it is even more wonderful if we can change the mindsets of our fellow citizens and our government whose policies have created the need for increasingly more shelters.

**Impact of ST on Inquiry Projects**

One student of Ukrainian heritage decided to do his final inquiry on the conflict in the Ukraine. By visualizing the problem, he was able to identify the
impact of different variables. His discussion led to a conclusion that the language nation states are using to negotiate peace is the same language used during the Cold War conflict. However, global realities have changed and if we continue to use language that is no longer valid, we will only end up repeating the same patterns of behaviour that we engaged in during the Cold War. We need new language and new mental models; otherwise, old structures will repeat old patterns. The closer he got to the mental models in his ST analysis, the more generative his responses became.

What ST did this semester changed the nature of the discussion, and it enabled me to keep the nested model of planet, people, and profit clearly in focus throughout the semester. Students began to see that each of their areas of inquiry and their praxis projects were all, in one way or another, part of the same human system. Although with this class I did not see any of the type of projects that garner media attention and make me as a teacher “feel good,” I do think that a more profound “seed” has been sown, and I believe that many of these students will, as they move forward in life, be better equipped to address the needs of their community and world.

Reference

Appendix
The following “doodling” is representative of students’ notes during a presentation on food security given by a speaker from the Canadian Food Grains Bank.
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