

# RURAL SCHOOLS AND TRADITIONAL KNOWLEDGE: REPRESENTING ALTERNATIVES TO A CONSUMER- DEPENDENT EXISTENCE

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## ABSTRACT

Given the present pace of educational globalization, educators – especially in rural schools – will benefit from an awareness of traditional knowledge as a significant contributor to sustainability. Many countries operate through a system whereby major decision making, especially in such areas as education and health, emanate from state levels of governance; and these decisions are often uni-directional. In education this implies a ‘one size fits all’ philosophy that forces educator compliance with accountability driven pedagogy and curricula subjected to competitive standardized testing processes that are caught up in market driven values. Aims of a research pilot (Harris & Barter, 2011-2012) in one province in Canada, and through a critical pedagogy of place and participatory research, were to introduce students and community members in rural areas to issues of local relevance; to develop school curricula that call for students-as-researchers; and, as an example of local knowledge and relevance, to focus on food practices (past, present, and as future possibility).

Initial findings of the pilot indicate the changing nature of rural life that includes a move from remoteness to semi-isolation brought about with the building of roads and effective ferry connections, transient populations seeking seasonal employment, and a growing awareness of people’s need to revive past practices of food production. We found as well, examples of extraordinary innovation in food cultivation and food harvesting that drew on local and traditional knowledge. Finally, we experienced success in incorporating traditional knowledge into existing curriculum. This we did by varying ways of knowing and experiencing through the arts. For us as researchers, two important concepts permeated this research, critical pedagogy of place and traditional knowledge. In this paper, situated in a framework of cultural and social resistance to economic globalization, I describe initial efforts of the pilot project in expanding the discourse of rural studies, exploring traditional and local rural knowledge, and increasing rural agency. While providing a brief overview of the project, its specific purpose is to highlight the relevance of traditional knowledge as a significant contributor to sustainable global growth. I think of the potential that such knowledge, which often originates from rural environments, has to represent an alternative to consumer dependence.

## INTRODUCTION

### *Globalization & Resistance*

According to Al-Rodhan and Stoudmann (2006), “globalization is a process that encompasses the causes, course, and consequences of transnational and transcultural integration of human and non-human activities” (p. 5). Founded on the principles of capitalism, it is seen by some as the “material logic of social life” that “shapes the ways in which people live, learn, work, relate and think” (Mojab, 2009, p. 4). As the sum of human life’s activities (linguistic, cultural, economic, political) as well as environmental activity (bacteria, diseases, natural disasters) - all the things that affect human life and security, it is a process that has been impacting communities for centuries. Within this framework, globalization is a process that is considered to be both beneficial as well as detrimental to the world’s security and stability. As Mojab (2009) points out, capitalism is both simultaneously productive and

non-productive – productive in that it can produce more than a country can consume, non-productive in the sense that it cannot survive without such consequences as colonial domination, a domination that, historically, has brought with it war, poverty, and the annihilation of cultures. In short, as Klein (2007) argues, capitalism thrives on disaster.

With respect to education, world culture theorists maintain that globally, schools, like other nation-state organizations, are becoming more similar over time and have spread from a common source (Anderson-Levitt, 2003), that of market capitalism (Gruenewald & Smith, 2008). Miller (1995), in reference to community development, made comparable observations more than a decade earlier as he pointed out that even though economic, social and environmental well being are interdependent dimensions, community development specialists and others tend to focus on economics. According to Segal-Levit (2003) “the spreading net of market relations necessitates standardization of information systems in the industrialized countries” (p. 223). Within this framework there is a preoccupation with what is “measurable and quantifiable: the amount produced, the cash in the pocket, the number of people employed” (von Kotze, 2009, p. 17), what Mamdani (2007, as cited by Walters and Daniels, 2009) refers to as ‘commercialisation of knowledge’ (p. 61). This mindset is accompanied by models and systems that meet those desired outcomes. Hence, for schools, one of the aspirations of education in the 21<sup>st</sup> century is to “develop excellence, maximizing the expression of students’ ability and the acquisition of scientific and technological knowledge” (Segal-Levit, 2003, p. 222). The emphasis on international student testing models such as the Program for International Testing (PISA) and the School Achievement Indicators Program (SAIP) are two examples. Walters and Daniels (2009) cite Spencer (2007) to argue that “globalization has hastened the process of the commodification of learning” (p. 61) that simultaneously stimulates a parallel process of “‘learning as dispossession’ by which people are stripped not only of their individuality, but also of their very understanding of their own exploitation” (p. 62). Gruenewald and Smith (2008) maintain that economic globalization has the potential to be “economically devastating, culturally homogenizing, and ecologically destructive to local communities” (pp. xiii-xiv). This is particularly true in schools where formal education is isolated from the “immediate context of community life” (p. xiv), especially for those which are more rural/remote and thus further away from the mainstream and are more I[i]digenous in nature. It should be noted here that, out of respect for the knowledge of Indigenous peoples while pointing out that rural peoples hold a similar traditional knowledge, especially environmental, as that of Indigenous peoples, I use a capital letter to highlight what I see as being the root of the “i”. Hence, “I” represents the knowledge of Indigenous peoples while “i” signifies the traditional knowledge of rural peoples in general. The “I[i]” provides what is intended to be a visual of groups of people who in spite of their contributions to global survival (see Nelson, 2008), remain on the margins of state level governance.

The literature of I[i]ndigenous peoples show the tensions that exist between them and the macro or mainstream systems associated with market capitalism – between local diversity and globalization (Mojab, 2009; Barnhardt, 2008) and the need to legitimate knowledge systems beyond the scientific and technological knowledge that dominate the western world (Hays, 2009). It is difficult to argue against the fact that we live in a capitalist world that is becoming increasingly unilateral. World governance and transnational corporate investment and their impact on people’s lives, including how they are educated, have become a global phenomena. As such, educators in rural schools worldwide have been charged with implementing these national interests and dominant ideologies, which are urban-based (DeYoung, 1987; Bauch, 2001; Wallin, 2007). It is evident that such discourse centers on a single ideology placing rural schools and their teachers in secondary roles, creating marginalization (Barter, 2009; Wallin, 2006) and a constant need to adapt (Mellow, 2005) the more mainstream ideas to local environments. Hence, while I concur with Hays and others (Mojab, 2009; Grande, 2004) that it is the western world that drives market capitalism, at the same time, there are many rural, remote, I[i]digenous communities within North America, whose people live traditional lives and struggle to sustain more local forms of knowledge creating a resistance to mainstream capitalist ideology. Aristotle (as cited by Crisp, 2000) put forth the notion of phronesis or practical wisdom as a counterargument to scientific knowledge. Crisp (2000) translates Aristotle’s concerns as follows:

*Though the young become proficient in geometry and mathematics, and wise in matters like these, they do not seem to become practically wise. The reason is that practical*

*wisdom is concerned also with particular facts, and particulars come to be known from experience; and a young person is not experienced, since experience takes a long time to produce. (p. 111)*

Researchers such as Gruenewald and Smith (2008) look to place-based education as a way to reclaim “the significance of the local in the global age” (p. xiii). Such a phenomenon in support of “practical rationality” (Flyvberg, 2001, p. 135) juxtaposes this against technical rationality and shows the potential significance for a more common practice of recognition of I[i]digenous ways of knowing. An opportunity lies in bridging the gap between these two. Hays (2009) poses critical questions that need to be considered in shifting knowledge consciousness among academics, bureaucrats, and practitioners as to the significance of practical rationality. These include: How can traditional knowledge become integrated into the formal curriculum? How can it and its proponents (i.e. elders) be recognized? How does such knowledge safe guard its own identity within an existing formal system built from formalized compartmentalization? It is questions such as these that have encouraged us to pursue our research both as individuals (Barter, 2007; Harris, 2002) and as co-researchers (Harris & Barter, 2011-2012).

## THE PILOT PROJECT

### *Background*

Food as a finite and vulnerable quantity has lately caught the public imagination in light of such threats as global warming, unstable weather conditions, globalized trade regulations, and the rising costs of health care and food transportation. In response to calls from teachers, administrators and community leaders for an increased emphasis on rurality (Barter, 2008), in a one-year pilot study (2011-2012), Drs. Barter and Harris (hereafter referred to as “we”) proposed an educational approach to food practices that involved one small, rural school (28 students from Kindergarten to Grade 12) and its larger community (population 257, [www12.statscan.gc.ca](http://www12.statscan.gc.ca)) in investigative learning. Widely acknowledging the necessity – both historically and today – for nutritional awareness and action that reflects such knowledge, we used the issue of food to connect rural context with urban understandings, the school with its community, past with present food practices, and traditional/local knowledge with current health and agricultural science. Our main objectives were to begin the development of a school-based curriculum addressing food practices in a rural setting and to highlight the significance for all participants (including university-based researchers) of local knowledge, environmental stewardship, healthy eating habits, food production and consumption. The secondary focus was to explore investigative approaches to teaching and learning with students, teachers, and community members as well as to involve two levels of cooperative learning: community members learning together and schools learning together and the school in Change Islands, Newfoundland and Labrador (NL), Canada, was selected as the pilot school.

### *Rationale*

As part of the research conducted on the southwest coast of Newfoundland, Canada between 2002-06 (see [www.educ.uvic.ca/NewTechCC](http://www.educ.uvic.ca/NewTechCC)), Dr. Harris (principal investigator) and Dr. Barter (collaborator) recorded marked differences across communities in eating habits and nutritional awareness, physical exercise, and overall markers of wellness. As there seemed to be an obvious relationship between food practices and related health patterns, we realized much more work was needed in this area, particularly in noting continuities and discontinuities in the history of Newfoundland between past and present practices. These features of Newfoundland heritage prompted questions about the history of gardening and food preservation; changes in eating habits over the past 75 years; what foods are grown today, and by whom; and what children know about food preparation, preservation, and healthy eating based on social knowledge and that which is presented through school curriculum.

Our main purposes were to strengthen, through an exploration of food practices, conditions of social equity and ecological sustainability, and affect positive change in public school curricular and pedagogical policy as it pertains to healthy eating, child and youth development, and environmental

health. We believe that many of the answers required to build on this knowledge lies within the traditional knowledge found in rural communities.

As we brought an educational perspective to our work, we saw both school and community as 'communities of learners' – communities of practice. Our belief is that learning is a lifelong process and that learning together (i.e. in conversations and using the Internet and by sharing findings across age groups) creates a respect for knowledge that leads to lasting change for all involved.

## ***Methodology***

Guided by methods of participatory research (PR), we formally invited the school principal, teachers and students (grades 4 - 12) of Change Islands to be part of this research. The school was recommended to us by the Director (formerly the Assistant Director of Education – Programs) for the Nova Central School District. The researchers gained, with ethical approval, the cooperation of the principal and teachers of the school. The research involved two groups of participants - community members (15 at a Community Red Cross meeting and 10 individual interviews) and school participants (i.e., a teaching principal, 4 teachers, and 22 students) over three 10-day periods during the autumn of 2011, and the spring and autumn of 2012.

We introduced ourselves to the children through songs and games about food such as *Lemon and a Pickle* (Birkenshaw-Fleming, 1996). Then, following existing public school curriculum guidelines for research and inquiry methods, the children learned about formulating appropriate questions, interviewing techniques and standard concerns of inquiry (e.g., informed consent, confidentiality, and participant safety). They became 'researchers' themselves, asking questions about food sources, traditions, preservation, and recording responses not only from parents and grandparents, but also from other community members – those often omitted from 'school – parent' communications. Interviews with adults, selected for their involvement in food production or knowledge of food production, were carried out by us, the university-based researchers.

During our first visit, the Principal of the school suggested that he invite all community members to attend, at the school, an introduction and orientation to the research program. At that meeting, we outlined 1) our participatory approach to learning that considers us all to be cooperative and lifelong learners, 2) our intention to involve students (given their personal permission and that of parents or guardians), 3) that students would be seeking adult cooperation in re-creating the history of food practices and present day realities and, finally, 4) details of dissemination of findings: curriculum documents, various media outlets, presentations to partnering agencies, and scholarly writing (journal articles and professional conferences). Adult participants were approached by a 'snowball' selection whereby one participant recommended another. Each adult and child participant was invited to sign a consent form specifying their willingness to engage in this project. As noted earlier, there were two levels of involvement. The first involved community members learning together (university researchers and community members). The second involved schools (children & adult) learning together - students as 'researchers', asking questions about local practices (historical and present) of a wide range of community members, and becoming record keepers and reporters; supplementing local knowledge with computer searches; and teachers, university-based researchers, and students as learners using the arts and technology (songs, drawings, photographs, software) as a means of expressing and experiencing knowledge.

Topics included the history of gardening in the community, soil preparation, food production and preservation (then & now), the nutritional properties of local berries and herbs, hunting and fishing practices, food preparation, the role of food in celebrations, the distinction between food security and food sovereignty, industrialization of food, fast foods – slow cooking, factory farming, food labelling, sources (by country) of the foods we eat, food transportation routes, and advertising and food. Sample questions included:

- What is the history of food production (i.e. gardening, fishing, and hunting) in Change Islands?
- How have eating habits changed over the years?
- What brought about the changes?
- What foods are being grown today? By whom? Why?
- What foods are being harvested today? By whom? Why?

- What food practices, historically considered, affect our actions today and are relevant for the future?
- What food related health hazards did people have to contend with years ago and how did they overcome these?
- What food related health hazards exist today and how can we overcome them?
- What kinds of food preparation serve our health needs best today?
- What changes in food preparation have taken place over the years?
- What role does outside agencies play in food production?
- Who benefits from the new order and who loses?

Since the school was multi-graded - children were grouped across more than one grade level (i.e. grades 4 to 6; 7 to 9; and 10 to 12), the researchers, as teachers, employed a variety of strategies to work with students. For example, when grades 4 to 9 were grouped together, the whole class worked collectively to create a chant about places (i.e. coves, lanes, walking trails, and so forth) on Change Islands. During the introduction of interviewing techniques students worked in groups of three and when art work was used to recall student visits to the community general store and a local farm, they worked individually around a table. Senior high students (grades 10-12) worked in pairs to do Internet searches on such topics as plant and animal-based foods and the slow food movement, as well as to create poetry on food issues but completed individual projects for their research on community grown foods, food label analysis for content and country of origin and research on health issues such as anorexia. Since we found that existing texts lacked local content, we adapted the texts to reflect what was missing. Our intent was not to add to an already full curriculum but to present the existing curriculum through a local context. We met with staff to choose appropriate subject areas such as health, nutrition, and social studies. We used the school course schedules to work in class with the students and invited the classroom teacher to work with us. We developed projects and class work that were relevant to the teacher and students. By the end of the third visit we found that we could enter a class and begin teaching as if we were regular teachers on staff. Since there was no qualified music teacher in the school, we gave back to the school by providing some classes in music and helping to create lesson plans with teachers when they invited us to assist. With parental and school consent, student projects (posters, power point presentations, interview report) and class work (songs, poems, drawings) were collected by the researchers as examples of what can be done to connect local environments to existing curriculum guides. Senior high students were given assignment credit as part of their course assessment for their projects in the Fall (2011) and those who consented to participating in the research, offered them to us when we returned in the Spring (2012).

Through interviews, public meetings, media statements issued with participants and partners and investigative approaches with these, students and their teachers, formerly guided by a curriculum of largely urban origin, found relevance in place-bound food studies. Although there were only three visits, we discovered through dialogue that over the year and a half, from one visit to the next, teachers continued to adapt their courses to reflect more of what was happening in the community. Projects were displayed on the walls in the main corridor of the school, and students told us of the new videos they had seen on food issues such as "Supersize It". They remembered many of the things we had talked about with regards to food and the food songs we had taught them. On our third visit the grade 4-9 students taught us a song about treats that was later re-created into animal and plant-based food songs. We found that they were more open to sharing some of the local things they eat such as wild birds and fish. One student told us about her vegetable garden and others shared what their family or friends grow. The Principal expressed how pleased he was with what was happening in the school. By the third visit, the community as well, was more open to sharing what they know. One resident presented each of us with a bottle of her blackberry jam preserve. Hence, although there has been no change to the curriculum at the Ministry level, and we acknowledge that such a change may take years, teachers at the school saw how they could integrate the local into existing curricula without compromising course objectives set by the Ministry. And there was no question that students were engaged in what they were doing. Tuhiwai Smith (2005) points out that there are diverse ways of accumulating and disseminating knowledge and "ensuring that research reaches the people who have helped make it" (p. 15). One is to 'report back' to the people and the other is to share knowledge, both of which "assume a principle of reciprocity and feedback" (p. 15). From what we observed, we believe that adults and school students alike acquired

- through collaborative research, conducting and/or participating in interviews, and group discussion - a greater understanding of the importance of preserving and enhancing rural lands, health habits and cultures.

## GAUGING THE PILOT PROJECT

### *Revisiting the Intent*

As we explored student involvement in research, we aimed for agency as in confidence, skills, and understanding of community relevance. Our findings emerge in the realms of traditional (adult) and experiential (students as researchers) ways of knowing. It is about working with teachers to choose appropriate curriculum areas for introducing food. We connected traditional knowledge with experiential knowledge to cross borders of learning and to dispel some urban myths concerning the material logic of social, economic, and environmental life that depicts rural living as being backward and non-progressive. We did not tell the students or read from a textbook but, rather, developed knowledge together with them and their teachers through people and place. With the limitation of three weeks on the Island, we could take only a first step that, now, requires follow-up on the part of the school and community.

Our intent, similar to the work of Barnhardt (2008) in Alaskan education, was to work with the school and its community to integrate local "knowledge systems into the school curriculum as a basis for connecting what students learn in school with life out of school" (p. 113) and focused on food sovereignty to make that connection. To do that we looked to the adults and their practice of orally relaying what they remembered about foods of their past as well as to recount what they do today. We interviewed Mr. Hurley, a fisherman, builder, and organic crop farmer; Mrs. Richards, an elder of the community who has given decades of community service through the Red Cross while raising ten children of her own; Mr. Powell who has spent all of his life on the Island and, as he quietly oversees the day-to-day living of the community, is identified by many to be a community leader; Mr. White, an elderly gentleman who up to the time of his succumbing to a terminal illness, had enough gardens to provide for family and friends; Mrs. Manuel who had been a longstanding nurse on the Island; Mrs. Jazienicki, the operator of a local bed and breakfast who had returned home after spending several years in a large urban center; Mr. and Mrs. Bown who ran a local general store; and Mrs. Morgan, a former teacher, the school principal's mother and a lifelong resident of the Island. We visited Mrs. Edwards, another longstanding retired teacher who agreed to spend some time storying with the senior high students at the school and Ms. White, a much younger resident, who operates a local craft shop and specializes in traditional head wear, mittens, and quilts, while also providing more modern outfits for current graduations and other special occasions.

Elder residents recounted stories of life on the Island: how pickle was made to preserve fish and meats, which livestock were raised and harvested, how vegetables were kept over the winter months, how berries were preserved, and some of the practices they maintain today as well as those that have changed. Mr. Bown, for example, told a story of how his Grandfather became a merchant in order to escape having to be under the control of an already well-established colonial mercantile system that forced fishers to trade their catch to the merchant for store merchandise in lieu of cash. He also recounted how he grows his vegetables and sells some to the local people. The interviews also recorded our knowledge, and lack thereof, about food practices. Sometimes we found ourselves repeating points or questioning participants to reach some form of understanding about what was being done. As an example, during our sharing of these stories with the older students at the school we commented a concern that out of all our discussions we missed asking how to construct a root cellar even though such cellars were quite common on the Island. My colleague and I had made the assumption that they were dug into the side of an existing mound or small hill to store root vegetables and other produce. Students shrugged as if to indicate they did not know either, except for one student who generally didn't say much during our classes, who quietly responded that root cellars were handmade out of wood frames and grass sods and layered to a desired thickness that would protect its contents from the frost. Eventually the structure would fill in and grow over with grass to give the appearance of a naturally made mound. We later learned that this student knew and could do a lot of things - they were just not things that were "academically" related. Other times we



recounted practices of our own families to build on the stories that were being told. Hence, the interviews, for the most part, were reciprocal in that we shared what we knew – and a great deal of laughter – with one another.

### ***Preliminary Findings***

Initial findings indicate the changing nature of rural life expressed in a move from remoteness to semi-isolation brought about by roads, cars, and an effective ferry service, a transient population as families are disrupted by underemployment and moves to find work, and a growing awareness of the need for food sovereignty as people seek to revive certain past practices. We found examples of extraordinary innovation in food cultivation and harvesting, drawing on local and traditional knowledge; historical and on-going dependence on naturally occurring nutritional sources; and, of special interest in the development of curriculum, success in providing many ways of knowing (multiple literacies) and experiencing through the arts.

The change that stands out for us is the growing awareness of the need for food sovereignty. Of interest here is the recognition that the local and traditional practices that had permeated rural life and had been a means of survival, at least partly because of the inaccessibility to “corporate” food supplies, has virtually disappeared in many, if not most rural communities. On Change Islands, for example, the industrialization of their fishery brought changes that required people to leave their homes to work in the fish plant. When this became their economic means of survival, alternative food sources became a necessity. Hence, the increase in store bought products. People could not work in a fish plant for eight hours a day and tend to gardens at the same time. Women could not work in the plant for eight hours and prepare home cooked meals. “Factory food” became a necessity. However, some people are returning to their roots for a variety of reasons – health being one, increased costs in corporate food supplies, and a shift in work patterns that has included a moratorium on local fish plant production being two others. One of the differences between the old and the new is that a more global knowledge of the kinds of food that can be grown in rural areas has shifted beyond the staple root vegetables (potatoes, beets, carrots, turnips, and cabbage) to such items as char, celery broccoli, and cauliflower. It is evident in some of the interviews that this focus on food is maintained with a great sense of pride. It is demonstrated as a source of knowledge for some members of the community as others seek advice from the local growers and buy some of their produce.

Of special interest, as well, is the recognition that there is ample space within the provincial school curriculum, especially in the area of social studies, language arts, and health, to teach to local knowledge. And thus, locate learning (both local and mainstream) in processes of co-participation to form communities of practice. Parker and Harley (2012) remind us, as educators, that “within a strong community of practice there is a strong sense of shared values and beliefs; a consciousness of, and commitment to, an overall holistic purpose that shapes the activities of the community; and, agreement on the set of practices that constitute ‘competent practice’” (p. 197). It forms learning as possession in contrast to Walters and Daniels’ (2009) “learning as dispossession”. Based on what has been observed in our research, it is believed that the recognition and acceptance of wisdom that cuts across multiple knowledge systems just might be necessary for more sustainable learning. However, although our purpose to introduce and benefit from multiple literacies bears encouraging results, the objective of developing experiential ways of knowing and gaining confidence (in teachers, administrators, and researchers) to take control of their own lives is less obvious. This is a challenge. We acknowledge that the development of experiential ways of knowing and gaining confidence to take control of one’s life does not take place because two researchers have arrived in the community. The question that remains asks if this immediate stimulant to “other ways of seeing” (Berger, 1967) will lead to a demand for greater local decision-making, and an ability to bring this about as changed practice. Part of the answer may rest with time constraints that a lack of funding opportunity has placed on us as retired school and university educators. As researchers, we are unable to work with the school and community for long periods of time to share our ideas and to convince people to believe in their own relevance as well as in the relevance of others.

In reflecting on our research framework, that of critical pedagogy of place, we are cognizant that such a framework – one that embraces progressive pedagogies, classroom democracy, community relations, and eco-social justice and equality as well as expand “the landscape of learning

opportunities between students, educators, and community members" (Gruenewald, 2008, p. 150) - is messy and takes time. Experience is lived and accumulated rather than produced. It is a way of being that separates it from the compartmentalized, commodification of knowledge. These factors are inherent in bridging hitherto existent silos of practice and understanding. As Geertz (1988) pointed out, over the years there have been many intellectual shifts that would broaden the field of research in favour of more humane ways of engaging in research that include participants, blurring genres and opening doors to mutual knowings between researchers and participants. Geertz reminds us that the building of coherent stories located in a particular place – rural spaces, in our case -- requires many facets of understanding.

We believe this to be of educational importance. The questions explored in this research – of the values of experiential and holistic learning as applied to both world action and self-knowledge – provide fuel for historical and on-going debates among researchers (e.g., Carr & Kemmis 1997; Hammersley 2002; Wallace 2004) and those involved in teacher training and curriculum development (Barter, 2011) and administration (Greenfield & Ribbins, 1993). The notion that schools can be places where people value their location and look to protect their uniqueness is also of educational importance (Barnhardt, 2008; Bauch, 2001; Miller, 1995). Part of our intent in the project was to use critical thought "to name and recover those aspects of community life that truly contribute to the well-being of all people and the places they inhabit" (Gruenewald, 2003, p. 10), in other words, highlight rural relevance. As such, our work thus far convinces us, as it did Gruenewald, that:

*The critical synthesis posed by a critical pedagogy of place posits that the questions of what needs to be transformed and what needs to be conserved are equally critical and necessary, that cultural and ecological contexts are always two parts of the same whole ... and that the shared experience of everyday places promotes the critical dialogue and reflection that is essential to identifying and creating community well-being. (p. 10)*

We have barely scratched the surface but write in the hopes that, as we continue, others will also take up the challenge of raising questions about rural relevance and how things can be arranged differently for rural communities and their schools. This paper is a wakeup call to all of us involved in education to critically analyze education as we know it. It is a reminder that we need to reflect on intersecting traditional knowledge systems with that of the mainstream. To do so means taking a closer look at traditional knowledge systems and their connection to schools.

## THE RELEVANCE OF TRADITIONAL KNOWLEDGE

Unlike formalized education, there is no universally accepted definition for knowledge that is often referred to as traditional, local, indigenous, experiential, practical knowledge. What is agreed upon is that it is "knowledge that is specific to a particular place and a particular group of people" (Hays, 2009, p. 196) and is often demonstrated in Indigenous ways of living (Nelson, 2008). It is a knowledge that is historically determined and flexible (Green, 2000) with a focus that is often environmental. McGregor (2004), in using Johnson's (1992) description of indigenous forms of knowledge, proposes that it is:

*A body of knowledge built up by a group of people through generations of living in close contact with nature. It includes a system of classification, a set of empirical observations about the local environment, and a system of self-management that governs resource use. The quantity and quality of traditional environmental knowledge varies among community members, depending upon gender, age, social status, intellectual capability, and profession (hunter, spiritual leader, healer, etc.). With its roots firmly in the past, traditional environmental knowledge is both cumulative and dynamic, building upon the experience of earlier generations and adapting to the new technological and socioeconomic changes of the present. (p. 77)*

According to Hays (2009) some of its defining characteristics include being cumulative, dynamic, fluid, diverse, and adaptable (p. 197) that are often attributed to both Indigenous and rural ways of life. The possession of such knowledge is determined by geography, local availability of resources, and the impact of macro-systems legal restrictions on traditional practices such as hunting and fishing.



Draper (1976, as cited by Hays, 2009) reminds us that although this type of living can be seen as being technologically simple, such a perception can be deceptive as the knowledge required can be quite complex and detailed as one needs to know about plant life, animal species, topography, problem-solving, and so forth. Scott (1998, as cited by Hays, 2009) maintains that “the practical knowledge of someone who has made his or her living – indeed, has survived – through a lifetime of ‘exceptionally close and astute observation’ of his or her environment is often superior to anything that can be discovered easily through ‘scientific’ methods” (p. 197). There are often many teachers over the period of learning and teaching that are exhibited in diverse ways or as multiple literacies. As Begaye expresses in his foreward to Grande (2004), “Teaching and learning naturally happen[s] in a contextual environment and across all disciplines” (p. viii). Hays (2009) uses earlier writers (Marshall, 1976; Draper, 1976) to make the claim that such knowledge is generally attained informally and thus is “assimilated more easily and rapidly than knowledge gained under pressure or direct instruction” (p. 199) and is often seen by those living it as being of greater significance than other more mainstream knowledge systems. She points out that the “transfer of children to formal school settings is one of the primary ways in which such knowledge is undermined. Simultaneously, the incongruence between different knowledge systems, and their transmission is one of the biggest barriers to indigenous students’ success in mainstream education system” (p. 198). Grande (2004) refers to the dominance in severe cases (i.e. assimilation of Aboriginal peoples) as “rhetorical genocide” (p. ix), a process that is aimed at erasing “[I]ndigenous peoples as a distinctive population defined by history, language, and culture” (p. ix). The intent of such a process absorbs people into a “social class framework – ‘modernizing’ them into ‘compatibility’ with the world’s notions of ‘progressive economic development’” (p. ix) that is also experienced in rural areas. In education these are accomplished through a variety of reforms (i.e. consolidation, integration, regionalization) based on urban model curricula.

Although, it is acknowledged with great concern that, as we move further into the 21<sup>st</sup> century, I[i]ndigenous ways of knowing are being constantly eroded by government controls and interventions through licensing practices, urban public opinion, and political rhetoric, I believe, as others do (Gruenewald, 2003, 2008; Hays, 2009) that such an erosion of traditional knowledge is detrimental to the survival of the earth. Research (Nelson, 2008; Gruenewald & Smith, 2008) shows that I[i]ndigenous knowledge has not only sustained rural communities since the beginning of time but has also contributed to global growth. The issues that arise lie within the recognition that the system lacks reciprocity, that which creates global growth has rooted itself within a frame of urban capitalism bent on depleting and destroying the very thing that helps it survive (i.e. mass productions of food to the extent of food poisoning; mass production of natural resource industry that destroys the environment while creating material wealth for some and impoverishing others). It is a reminder of the need for a shift in consciousness among academics, policy-makers, and others as to the value and legitimacy of traditional knowledge (See Barter, 2011).

### ***Connecting to Schools***

As stated in the last section, formal education tends to have devastating effects on the transmission of I[i]ndigenous knowledge. It separates children from the environment in which they traditionally learn. And, although many indigenous communities reside in rural, more remote places, away from their more urban counterparts, the expectations of the formal system places demands on schools to adhere to the prescribed curriculum. Despite whatever competencies rural children might have, the skills required of formal education are so dominant, any other forms of knowledge are implicitly devalued and demonstrate what children in rural communities do not know, rather than what they do know. Hence, they learn not to talk about that which they know. I noted that children on Change Islands did not talk much about what they liked to eat until our third visit even though the question was asked on our first visit. Earlier research (Barter, 2009) indicates that many rural teachers, as well, struggle with this knowledge divide. Their stories expressed feelings of “being recognized not as educators in rural communities but as rural teachers forced to fit urban realities” (p. 235). And, as Hays (2009) contends, “this undermines both the learning process of the students and the transmission of indigenous knowledge” (p. 199). The challenge lies in addressing the questions raised by Hays (2009, p. 194) earlier in the paper as to how traditional types of knowledge can be integrated into the formal curriculum and how to recognize the bearers of traditional knowledge

within the formal system or as part of a system that is both formal and informal. According to Hays (2009), education projects seeking to incorporate 'indigenous knowledge' into the curriculum, become a challenge in that, since the existing structures necessitate standardization and compartmentalization, implementers tend to focus on the information rather than on the forms of knowledge transmission (p. 203). As indicated in the last section, for the most part, the accumulation of traditional forms of knowledge does not arise from segmented units packaged to be taught within a specific timeline as is much of our formal education. Communication with the environment and the community over sustained periods of time is a natural process that is required for the transmission. From an implementation perspective this implies that it might be easier to cling to formal models of education and mainstream ideology so why bother.

Part of the answer lies within the significance of the preservation of world cultures as they are influenced and shaped by global growth. Similar to writers such as Ferdinand Tönnies (1957) and Max Weber (1964) who shared a common interest in the way economic, political and social changes have impacted on modernization, the challenge is to understand what is happening as a result of the growth of industrialization, and how it affects not only personal relationships and community life (Barter, 2009) but also global survival as it pertains to food security and food sovereignty. And, as pointed out in our (Harris & Barter, 2012) findings, we need to be asking what needs to be transformed, what needs to be conserved, who decides that, and for what purpose. This is not a new challenge. As a cultural example, in music, ethnomusicologists such as Zoltán Kodály were concerned about the life of European peoples (Hungary in particular) which had been "in transition from an unwritten, agrarian folk-culture towards an urban culture of books and factories" (Kodály, 1971, p. 13). Kodály was concerned that Hungary's political and economic ties to Austria and the Hapsburg monarchy had made invisible that which made his people Hungarian. While Hungary with its massive peasant population had a music of its own, the Hungarian elite accepted Viennese music as its own. Kodály and others such as Béla Bartók looked for cultural relevancy by searching for the roots of Hungarian music. Their intent was to "free Hungarian art music from the German-Austrian influences that had dominated it for centuries" (Choksy, 1981, p. 4), to create Hungarian relevancy for their people. This perspective has had a pedagogical impact on current views in education in that many education pedagogists believe that, sustainable learning is achieved when information, be it musical or otherwise, is presented in a language and context to which children can relate. It demonstrates the relevancy of "mother-tongue education". As Choksy (1981) writes in relation to Kodály's method, "That, as a child posses a mother-tongue – the language spoken in his [or her] home – he [she] also possesses a musical mother-tongue in the folk music of that language. It is through this musical mother-tongue that the skills and concepts necessary to musical literacy should be taught" (p. 7). This places relevancy on the knowledge itself.

I use a similar argument in the legitimacy of indigenous knowledge in general. If there is sophistication in various forms of traditional knowledge that is far from being obsolete, such knowledge is of value beyond a life-in-the-community. As Barnhardt and Kawagley (2005) point out, "The depth of indigenous knowledge rooted in the long inhabitation of a particular place offers lessons that can benefit everyone, from educator to scientist, as we search for a more satisfying and sustainable way to live on this planet" (p. 9). Those who live in the Arctic, for example, are the first to experience climate change. The deep, long standing understanding that these people have of their environment can be an asset to modern day science (Nakashima, 1993). The number of times that corporate food productions have threatened the health and financial well-being of its consumers are reminders of how people need alternate sources of knowledge that stabilize and enable food sovereignty. XL Foods, in Brooks, Alberta, Canada, where tons of beef and beef products had to be destroyed owing to bacteria ([www.cbc.ca/news/canada](http://www.cbc.ca/news/canada)), the foot-and-mouth disease epidemic in the UK in 2001 (Hillyard, 2007), and the results of corporate and government management of the fisheries (Eythorsson, 1993; Ommer, 2007) are three examples. As Hays (2009) argues, "Indigenous knowledge is thus valuable in its own right and should be nurtured; recognizing, validating and incorporating IKS [Indigenous Knowledge Systems] into formal and non-formal education projects will be an important part of efforts in this direction" (p. 204). People's better appreciation of such knowledge and its incorporation in the formal schooling system instills value – something worth knowing. Its importance plays out in multiple ways of knowing how to gain food supply, for example, that helps people survive on their own, thus decreasing human dependence on large

corporate food suppliers and at the same time, presents rural places as identified spaces – places of value.

Despite its significance to humanity in general, Hays (2009) ascertains that the survival of traditional ways of knowing can only happen if its bearers know and understand its significance as a contributor to their survival. And, I concur, however, I do have a concern that the onus for valuing this knowledge is placed, it seems, squarely on the shoulders of the peoples who have had their knowledge subjected to ridicule, removed from the mainstream to be romanticized to the point of non-recognition and, therefore, not of significance. Traditional peoples live on the margins, quite often both geographically and mentally. This marginalization, in my view, deprives the world of a crucial resource. Non-recognition, according to Taylor (1992), “can inflict harm, can be a form of oppression, imprisoning someone in a false, distorted, and reduced mode of being....Due recognition is not just a courtesy we owe people. It is a vital human need” (pp. 25-26). Recognition, from this perspective, not only comes from within, it comes from without. Schools and school districts can play an important role in the sustainability of this recognition. Hence, I make the case for curriculum that reclaims the significance of the local in the global age. If the integration of multi literacies is viewed as a form of reciprocity, interaction between local communities, schools, and universities can provide learning opportunities that serve humanity in a more holistic way and, as Gruenewald and Smith (2008) maintain “might mitigate against the potentially harmful effects of globalization” (p. xiv). There exists little research that speaks to the role of education in this process. And, to reiterate, Harris and I continue our research in the hopes that others can be encouraged to take up the challenge. In his preface to Nelson’s book (2008) on Indigenous teachings, Kenny Ausubel, Founder of Bioneers, an organization that acts as a forum for disseminating Indigenous knowledge, speaks of seeds as being considered sacred by Six Nations people. Seeds honour the natural cycle of life. Through them we hear the voices of our ancestors and if we live up to the commitment of the life cycle, life will be everlasting. If we accept that rural places are here to stay, we also have to commit to cognitive and cultural pluralism (multiple literacies) and respect diverse ways of knowing. We not only have to tolerate the existing differences, we have to respect them and include them in mainstream ways of knowing.

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