

10 Marginalization and Teachable Moments: Two Circumpolar Postsecondary Case Studies

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Teacher training institutions are shaping and deepening knowledge, skills, abilities and understanding for a teacher working with cultural differences. It is important to gain awareness cultural sensitivity in compulsory education and in teacher education as well. Cultural diversity is often seen as a dilemma in the educational situations. Marginalization of the culture and lack of cultural sensitivity might be one consequence. Intra cultural diversity also exist and can be visible or non visible, but this will not be discussed in this paper. Johansson (2007) calls for a research based teacher education to put light on marginalization. How can indigenous values and cultures in terms of traditional knowledge and skills be respectfully and responsibly included in education. Paci (2005) discusses education as one context for empowerment for indigenous peoples.

What is a Sámi school? How can the national curriculum support the Sámi School to be sensitive to the Sámi culture? Interest for how to educate the Sámi was found already in 1600 (Johansson and Johansson 1968, Ruong 1975, SOU 1960: 41). In the Nordic countries these educational processes started approximately at the same period of time. In the past the Sámi schools in Sweden have been constructed as moving schools with the nomadic life of reindeer herding since 1632 to 1938. The role of the schools was to offer the Sámi the Swedish language, culture and attitudes in order to make them good citizens. Sámi language and culture were effectively marginalized. The Swedish state wanted to have a citizenship that was loyal to the state so actually the Sámi were offered education earlier than other citizens. Documents also show how priests and missionaries had an argumentation that Sámi children were not possible to teach in the majority language of the country (Hirvonen, 2004). They were considered to be a hedonic people. The society also considered that the best way to Christian the Sámi some Sámi was to educate some Sámi boys to priests. Most of the boys were very unhappy to be forced from the families and not allowed to speak Sámi language, but still some of these boys did come back as priests to the Sámi area. Girls are not mentioned during this period. The schools moved with the reindeer herding groups and considered to be better for the pupils and the families than a stationary school, still is

was a politic of segregation. The Sámi children were to be educated in different way than other children in the society and the teachers' competences were in debate especially concerning the knowledge of Christianity. In 1877 it was regulated that the education was to be conducted in Swedish, if the Sámi understood the language (Svonni 1993). The Sámi schools were by this time located in special tents which were also a traditional way of living for Sámi. In 1940 these tents were not accepted for school purposes and so called "pupils home" were built instead. The children had to stay on these pupils homes during the school year. They were not allowed to speak Sámi. Marginalisation of the children's language and culture was conducted. People in the Sámi communities in Sweden struggled to be offered a better access to education. In 1977 a parallel form of school for Sámi was developed for primary and secondary levels.

Today Sámi schools are developed for year 1–6, preschools for children of age 1–5 and children's leisure centres for ages of 6–12. Sámi schools are a part of the Swedish public school system with the same national curriculum as all compulsory schools in Sweden; they include Sámi perspectives in their curricula. In Sweden there are six Sámi schools. All schools are controlled by the Swedish National Agency for Education through evaluations. The Sámi School has special regulations and they have additional national evaluations, concerning culture based education. When it comes to upper secondary levels the children do have to join integrated education, with two hours a week of the mother tongue. Challenges for the future for indigenous education are how indigenous perspectives are permeating indigenous education, both as a starting point for school curricula and as a part of more general policy. From the Sámi schools there is an interest to develop the schools through curriculum development. Teacher education is also an area of interest. A challenge for the nearest future is to develop a curriculum for a multi contextual school. The Education act and the Curricula state that the School has an important role in communicating and firmly establishing the values of the society.

Indigenous Knowledge and teachable moments in postsecondary education

The term Indigenous Knowledge poses some challenges (Flanagan 2000, Widowson and Howard 2006). This paper will discuss knowledge broadly. This is not to ignore comparisons with Western knowledge. Applying the label Indigenous knowledge in the paper is challenging.¹ Battiste (2002) notes,

Often oral and symbolic, it [Indigenous knowledge] is transmitted through the structure of Indigenous languages and passed on to the next generation through modeling, practice, and animation, rather than through the written word. In the context of Indigenous knowledge, therefore, a literature review is an oxymoron because Indigenous knowledge is typically embedded in the cumulative experiences and teachings of Indigenous peoples rather than in a library.

Indigenous knowledge could be described as practical knowledge about local conditions that are special for a geographic area or time period. From that point of view indigenous knowledge are the same as local knowledge (Kalland 1994). And both indigenous knowledge and local knowledge is also closely connected to traditional knowledge. Jernsletten (1997) defined traditional knowledge as the knowledge that are developed and preserved over generations in local communities. Sámi traditional knowledge could be fined as a practical and theoretical knowledge about the use of nature, and it also includes the understanding of psychological conditions, spiritual, social relations, cultural and social institutions (Bergström 2001). Indigenous knowledge, local knowledge and traditional knowledge has therefore common grounds. However Keskitalo (1993) emphasized that indigenous knowledge, and Sámi traditional knowledge as an indigenous knowledge, also includes a minority relation to a majority state. It is also of vital interest concerning minority and majority language issue to be aware of. The Sámi population is in the multicultural community and there are also variations inside the Sámi culture. The different areas in Sápmi are not automatically able to understand the different Sámi languages. Language difference exists between the different areas in Sweden, or in Finland, Norway and Russia. It can be relatively small groups based on the area they are from and the language or the country of residence for and the eventual hierarchies inside Sámi minority. Sometimes there is diminishing targeted to the minor Sámi cultures and persons with Sámi minority background for example Enare Sámi or Skolt Sámi. From that point of view indigenous knowledge differ from both local and traditional knowledge. Indigenous knowledge or Indigenous traditional knowledge, for example Sámi traditional knowledge, could be defined as the knowledge that is developed and preserved over generations, but because of historical, social and cultural reasons has not been visible within the indigenous communities' formal institutions for teaching and learning.

1. Using the term traditional knowledge we hope to convey knowledge this is far from closed. This language represents, but also masks, a certain degree of adaptability and fluidity, a view unfairly criticized by Widdowson and Howard (2007).

To make indigenous knowledge visible and to develop formal indigenous institutions for teaching and learning within the indigenous communities is a main focus for many of the indigenous' researcher, teachers and leaders. In Jannok Nutti and Spiik Skum (1998) the main focus was to make the Sámi traditional knowledge and the Sámi culture a base for the education in the Sámi School. And in the research of Jannok Nutti (2007) was Sámi traditional knowledge according to mathematical thinking as an indigenous knowledge described and analyzed from point of ten Sámi handcrafters' and reindeer herders' stories. The stories made mathematical indigenous knowledge visible and the reason to make the knowledge visible was to connect the knowledge to the education in mathematics in the Sámi School. To connect indigenous knowledge with the formal institution is to decolonize (Smith 1999, Kuokkanen 2000). We endorse protecting and sharing Indigenous knowledge. It was "collected" in the past by intellect as much as it was taken by force, under illegitimate circumstances. Today, the benefits of knowledge and its use still do not always flow back to the peoples from which it originates. In our paper we discuss Indigenous knowledge informed by intellectual property debates, without being preoccupied with the legal discourse (Boyle 1997). For us, teachable moments occur for students and teachers as the complementarily between experience and knowledge, and this can be one way to develop curricula to strengthen cultural understanding and identity. Marginalization could be more visible.

Encouraging responsible sharing includes accepting that knowledge does not need to be fixed and final, that the right to knowledge remains with the original holders and not with those who articulate it into an academic or other setting. In reality; however, solutions to these problems are hard to find and public or community knowledge is at times used to benefit an elite. As private knowledge enters the public domain (Boyle 1997, Fisher-Yoshida 2004) the art of decolonization is to resist appropriation. Educators want to bring culture-based knowledge into classrooms, to encourage students to become good members of society, to live a good life, to propagate northern values and being, to serve the public good (Nadasdy 2005).

Indigenous teacher education

Postsecondary institutions are built on western concepts (Smith 1999) some universities are re-designing courses, policies and student services to include Indigenous knowledge.

Fisher-Yoshida (2004) notes,

In Aboriginal cultures, knowledge is classified into three types, which may not be typical to only these cultures. There is traditional knowledge, which has been handed down from previous generations; empirical knowledge, which is gained through careful observation; and revealed knowledge, which is believed to be spiritual in nature and becomes apparent through dreams, visions and intuition. For indigenous groups of people, knowledge is created through everyday lived experiences, being in the world, and shows itself in the capabilities, priorities and value systems of the local cultures from within which the knowledge is created.

Many institutions have a primary mandate to prepare for jobs and students are recruited from Indigenous communities into certificates, diplomas and degrees. When discussing curriculum and pedagogy, perceptions about what is important, and how things are done is central. Hannibal – Paci (2000) asks concerning “his knowledge and my knowledge” how educators do go about making improvements for the way they teach and learn. According to Klein (1996) we have indications of what this looks like at the university level:

American Indian studies must be allowed to define and build its own intellectual traditions, based not on the differentiated social and political system of white culture but on the holistic ‘undifferentiated systems’ of native American cultures. That has meant focusing on oral traditions, treaties and treaty rights, tribal government, forms of organizations, group persistence, and American Indian epistemology. It has also meant avoiding being classified as the study of ‘just another minority.’

Teacher education in Northern Sweden: Sámi Schools and reindeer herding, Sámi Schools and Sámi traditional knowledge



Sami people, like other Indigenous peoples, educate each successive generation through family and community relationships using oral and experiential learning. Children are educated immersed in cultural practices and languages from birth as independent learners (Pittsa Omma 2007). According to Johansson (2007) the learning processes are deeply connected to make own decisions, with support from parents or the grown ups. It is of crucial importance in the Sámi culture to develop independence. Formal schooling separated students from family and the imposition of this foreign “national” school system, run by church and/or state, largely interrupts Sámi education.

Pioneering research by Balto and Johansson (2006, 2007) to support Sámi schools began in Sweden as a practical way to address the needs and to develop and strengthen Sámi perspectives. Fundamentally, research was seen as an important means to clearly articulate Sámi perspectives, which would then inform teacher education. Teachers in Sámi schools are largely educated through mainstream teacher education, with minimal connection to Sámi perspectives. This was improved by locating institutions closer to the Sámi; however, they still lacked Sámi schools, including curriculum and pedagogy informed by traditional knowledge. Sámi teachers are interested in participatory action research methodology as a way to gather and communicate essential Sámi culture and language in the classroom and remove teaching from the schoolhouse.

In the research of Jannok Nutti (2007) the learning was analyzed from the point of learning within a cultural context with focus on the mathematical knowledge, and knowledge transforming through generations. Today is the education in

mathematics, in many times, directed by the books. The main focus for an ongoing action research and school development project (Jannok Nutti 2008) is to reformulate the education in mathematics in the Sámi Schools. The project by Jannok Nutti (2008) is conducted together with Sámi School teachers, pupils, parents, grandparents, and the extended family. An example from the daily work within Sámi Schools is Sámi traditional activities as for example grouse trapping. During the grouse trapping activity a father came to the school and taught the children how to build a trap; both inside the classroom and of course out in the forest close to a lake near by. To build a trap you use traditional measurement and measure methods, but the trapping activity in hold a lot more than just mathematics. They had to ski to the place where the traps were constructed, and the father also told a lot of stories around Sámi traditional knowledge. When the traps were finished the pupils needed to take a way the loops in the traps, because it is not allowed to hunt for grouses in that time. The father strongly emphasized that the pupils need to be sure that each loop was collected, so not any animals got hurt there. The activity also therefore made the traditional Sámi ecological knowledge visible.

Another example is from the Sámi School works was also connected with Sámi traditional measurements and measure methods. Here the activities were conducted around the teacher's consideration that the pupils need to build their mathematical understanding from point of their own experience. The teacher therefore put a lot of time on developing the pupils understanding on measurements and suitable measure methods. According to the measurements the pupils both learned Sámi traditional measurements and also connected this to the meter system. The body is traditionally used as a measurement and the pupils were here both able to measure with the traditional measurements and also to creativity use their body to conduct their own measurements. They measured for example snow depth and distance. They also worked both inside school and also outside school. Here a grandfather came and told about the importance for the reindeer herders to measure the snow depth. In this project the examples are from the male areas. Gender perspectives are missing in this study and a gender sensitive perspective needs to be taken in account further studies. How manage to combine the daily math with the academic math is an on going theme within the project and the project has it base from point of earlier research of Lipka with others (1998, 2005). Lipka worked collaboratively with Yup'ik Eskimo elders, teachers, mathematicians and mathematics educators in Alaska and transform the curriculum in mathematics by incorporating local knowledge into culturally based mathematics lessons. The work embedded mathematics within the everyday experience, culture and lan-

guage. The study by Jerry Lipka represents a concrete way to transform curriculum and pedagogy, and the work in the Sámi Schools and communities is aiming in the same direction. Mathematical thinking and mathematical practices are within the Sámi traditional knowledge which has been pointed out in Jannok Nutti (2007). But there is a need for further research to transform the knowledge into effective mathematics education. Research in Norway (Hirvonen 2004, Todal 1999) indicates that the dominant culture in the public school system is Norwegian. The same conclusions came from Skolverket (2003) in Sweden. Balto and Johansson's (2003–2007) longitudinal action research project was driven by an ethical responsibility and sensitivity to access cultural information. These researchers used caution when applying external frames to interpret results from their research.

Action research requires the engagement of researchers with school staff in deciding what questions were to be explored, focussing on the possibilities and obstacles of integrating traditional knowledge, cultural understanding and revitalizing processes into school practices. The project team sought to analyze teacher competence through a cultural lens that included understanding colonizing and decolonizing processes. Ultimately action research sought to understand how teacher education institutions introduce the subject of Indigenous peoples in education. Method was created and used for these schools and research project to work against marginalization and to revitalize culture through teachers promoting their culture.

The Aurora College experience: A view from the smokehouse



Thanks to the Creator for bringing us fish in the *Xuk'e* (spring). Imagine the snow has melted and the last of the *t'e nadzha* (candle ice) is dammed where Salt River drains into *Desnedé* (Slave River). The camp is set up for a cohort of northern teaching students. We are outside and it is a warm spring day, the Elder is holding a *dedelhi* (sucker) and we are making dry fish. This is an Aurora College, Teacher Education Program class taught by Instructor Priscilla Lepine. As the ice clears down river, *Tsah* (beaver - *Castor canadensis*) are swimming, *K'ah* (white willow - *Salix alba*) and red willows (*Salix laevigata*) along the riverbank are just forming buds, and further back in the bush the *Xadze* (poplars - *Populus balsamifera*) and *Tsuh* (spruce - *Picea Marianna*, *P. glauca*) are budding out new growth. The first *slow tth'i* (mosquitoes - *Culicidae*) are finding us in the sunny afternoon. The nets bring us dedeilee (*Catostomus commersoni*), some goldeye (*Hiodon alosoides*) and Udha (northern pike - *Esox lucius*). By using Latin we signal the “scientific” approach. Writing the *Denesq̓line* (Chipewyan) and *Deh Gáh Got'ine* (Slavey) we evoke Indigenous approaches.

Our shift to a land based class indicates a profound form of renewal. The picture is complicated, representation: we are moving from intuitive action to take the scene apart and explain what is going on, how we teach/learn. There are several worldviews here. According to Atleo (2007) worldview one is the fish camp, the physical manifestation/cultural artefact, along with the traditional strategies of

interacting with the environment/cosmologically organized. Atleo notes (1993) the second worldview is the strategic perspective, interacting in the space in which teachable moments can be identified and acted upon, a western educationalist perspective. The third view is the interaction in the teachable moment where the student and teacher are interacting, we don't know what the student brings to this moment, but in western education we have theory and assessments. Atleo (1993) says that worldview four is the realm most educators talk to each other in, in which the strategic organization of education and theorizing is constructed.

The Government of the Northwest Territories developed Inuuqatigiit and Dene Kede curricula for Kindergarten to grade 12, adopted in the 1990s. At the postsecondary level attempts continue to implement traditional knowledge policies and practices. In each of the first three years of the teacher education program students take "culture camp" one, two and three; each is a credit course (the first year is a two-day program, the second year is four days and the third year is two days). Fish camp provides students with the opportunity to "explore local traditional knowledge on the land". The expectation is that student teachers will replicate this exercise in their classes.

To what extent we can bring different teaching moments into the smoke house? Gruenewald (2006, 3) challenges,

In my teaching and research on education and place, I'm constantly coming back to questions of purpose. What am I trying to get at, really? What happened here in this place? What's happening here in this place? What should happen here in this place? We need to understand where we are and what is it we are trying to accomplish before we can gauge "what works." This principle seems obvious to me, and there is a certain logic to it. But questioning our purposes, deliberating in earnest about our aims? Most educators are just too hell-bent on achievement.

Some challenges

The Sámi schools expressed a doubt whether Sámi cultural knowledge were appropriate for the schools and they were aware of the importance of good results on the national assessments. Sámi teachers were insecure in using ceremonies including knowledge from the past, this knowledge was hedonic she had learned. They have during the project explored and extended the space for liberated action. The processes are needed not only for teachers, but for Sámi school authorities, politicians, and the societies. Battiste (2002) notes, "Aboriginal pedagogy is found

in talking or sharing circles and dialogues, participant observations, experiential learning, modelling, meditation, prayer, ceremonies, or story telling as ways of knowing and learning.” In the context of traditional activities, culture camp, culturally relevant teaching on the land, even bringing traditional knowledge into the classroom, all of these are opportunities for sharing and learning, which includes new knowledge and process, in a way that is relevant to peoples’ experiences. It can be planned for, but more than that it is an opportunity that presents itself, the teachable moment. Teachable moments are the result of discourse between the holders of knowledge transforming western educational approaches. Battiste (2002) identifies this as blended knowledge systems in educational institutions. Indigenous epistemology and pedagogy is respectfully blended with Euro-Canadian epistemology and pedagogy to create innovative educational systems.

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