Hug- og félagsvísindasvið

Nútímafræði

2012

Education and indigenous knowledge in the Arctic

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Lokaverkefni við Hug- og félagsvísindasvið

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Lokaverkefni til 180 eininga B.A.-prófs við Hug- og félagsvísindasvið

Leiðbeinandi: Jón Haukur Ingimundarson

Ég lýsi því hér með yfir að ég ein er höfundur þessa verkefnis og það er ágóði eigin rannsókna.

Þórhildur Jónsdóttir

Það staðfestist hér með að lokaverkefni þetta fullnægir að mínum dómi kröfum til B.A.-prófs við hug-og félagsvísindasvið.

Jón Haukur Ingimundarson

Útdráttur

Í þessari ritgerð verða kenningar og viðhorf til menntunar á norðurskautssvæðinu skoðuð, hvernig innfæddir við norðurheimskautsbaug nota þekkingu sína á nánasta umhverfi og lífríkinu til að kenna unga fólkinu fyrir utan hina „hefðbundnu“ skólastofu, þetta er gert til að styrkja frekari tengsl barnanna við náttúruna sem mun veita þeim dýpri skilning á arfleið sinni. Kunnátta innfæddra á norðurslóðum er mikið notuð við kennslu þar sem börn læra af eldra fólkinu, hvernig á að umgangast lífríkið og náttúruna en jafnframt að bera virðingu fyrir öðrum og umhverfi sínu og að þau þekki arfleið sína, sögu þjóðarinnar, tungumálið og venjur. Þessum kennsluaðferðum innfæddra er fléttað inní hina vestrænu kennsluaðferð, það er arftekinn þekking frá eldra fólkinu ásamt vestrænni þekkingu. Menntun okkar þarf ekki eingöngu að fara fram í skólastofu, umhverfi okkar hefur umfangsmikla möguleika sem nota má til kennslu.

Það eru þýðingarmikil samskipti sem eiga sér stað við norðurheimskautssvæðið milli minnihlutahópa og meirihlutahópa, sem eru staðsettir þvert yfir gríðarstórt svæði með litlum íbúafjölda. Vegna þessa er stundum litið á menntun á norðurslóðum sem leikvöll þar sem ólíkir þjóðfélagshópar berjast um að hafa áhrif. En menntun ætti að vera mikilvægur mælikvarði fyrir mannlegum þroska á norðurskautssvæðinu. Áður fyrr voru börn á norðurskautssvæðinu aðskilin frá foreldrum sínum og fjölskyldu til þess að komast í nám, enn þann dag í dag ef börn á þessum svæðum vilja sækja sér æðri menntun, það er að fara í háskólanám, þá þurfa þau enn að yfirgefa heimaslóðir sínar og fjölskyldu. Í dag eru skólar í flestum samfélögum á norðurslóðum, en jafnframt geta nemendur sem búa á mjög afskektum stöðum og á dreifbýlisstöðum fengið heimakennslu. Aukin tengsl við umheiminn með tilkomu netsins veita nemendum tækifæri til að taka námskeið á internetinu, og má þá nefna til dæmis B.A. gráðu í norðurslóðafræðum við Háskóla Norðurslóða.

Ritgerðin mun jafnframt fjalla um hinar ýmsu tegundir skóla við norðurskautssvæðinu, flökkuskóla eða hirðingjaskóla, og útikennslu. Hvernig þeim kennsluaðferðum sem beitt er í þessum skólum reiðir sig af á móti hinum hefðbundnu vestrænu kennsluaðferðum í skólastofunni og hvort þessar tvær kennsluaðferðir geti unnið saman að menntun barna við norðurheimskautsbaug.

Abstract

This thesis examines education in the Arctic, how indigenous people in the arctic use their knowledge of their closest surroundings and the biosphere to teach the young people outside the traditional class room, but the reason for this is for the young people to strengthen further connection to their surroundings, the nature and give them better understanding of their heritage. Indigenous knowledge is a well known educational material in the Arctic and is used a lot where the elders teach the young people how to consort with nature and the biosphere in their home place. This type of education form is interlaced with western educational form, that is, traditional knowledge from the elders and Western knowledge. Our learning need not just solely take place in the class room; our outdoor environment has massive potential for learning.

Over the years there has been significant interaction within the Circumpolar North between minority and majority groups, located across vast areas with small populations. Because of this interaction education is sometimes seen as an arena where different social groups struggle for influence. But education should be an important indicator for human development in the circumpolar north. Previously children in the circumpolar north were separated from their families so they could attend school, and still today if children seek higher education they need to go away from their family to get their degree. But today in most Circumpolar Northern communities there are schools, and for students that live in remote and rural locations there is home schooling. Improved connectivity allows students to take some courses on the internet, for example the Bachelor of Circumpolar Studies courses offered by the University of the Arctic.

This thesis will also address various types of schools in the circumpolar north; we will look into nomadic schools and outdoor education. We will focus on how indigenous knowledge is used in these types of schools, and how indigenous knowledge works against or complements the typical western knowledge that is used much in most classrooms, and how and if these two ways of knowing and teaching can work together for better education in the Arctic.

Þakkarorð

Ég vil þakka fjölskyldu minni fyrir stuðninginn og hvatninguna sem þau hafa veitt mér í gegnum námið. Ég vil þakka Jón Hauk fyrir hjálpina við vinnslu þessara ritgerðar og fyrir að kynna mér fyrir leyndardómum frumbyggja norðurslóða, menningu þeirra og hefðum. Að lokum þakka ég manninum mínum honum Jónasi fyrir að vera ávalt til staðar fyrir mig og hvetja mig áfram til dáða á hverjum einasta degi.

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1. Introduction

Access to education is the keystone in human development; no matter where we live, good education is crucial for us to grow and expand our minds, extend our knowledge, skills and values in general. Education is critical part of sustainable development. Our learning needs not just solely take place in the class room; our outdoor environment has massive potential for learning. Learning outside the class room may give the student deeper understanding of the complex reality of life and how we should consort with it. Students and specially children are very curious about their surroundings, the teaching is therefore more interesting, more stimulative, and efficient when they have the choice to adopt knowledge about their surroundings by going outside of the classroom and learn from their nature. In the Circumpolar North there are frequently two different types of curriculum in education, the Western knowledge and the indigenous knowledge combined together in harmony. Northern education includes both formal and traditional programs; this is done in such a way that one is not given prominence at the expense of the other.

This thesis will focus on educational forms in the Circumpolar North, and how the two forms of knowledge can work together. Indigenous people have strong ties to their environment, both spiritually and subsistence keeps them closely attached to nature, and they want to keep it that way so it is important for indigenous people to pass along to the younger people their knowledge of the spiritual world and nature. Indigenous peoples throughout the world have sustained their unique worldviews and associated knowledge systems for millennia; they have been doing this even while undergoing major social upheavals as a result of transformative forces beyond their control. Many of their practices, beliefs, and values associated with indigenous worldviews have survived and are now beginning to be recognized as being just as valid for our generations as they were for generations past. The profundity of indigenous knowledge which is rooted in the long inhabitation of a particular place can offer lessons that can benefit everyone, from scientist to educator as we keep on searching for a more sustainable and satisfying way to live on this planet (Barnhardt, 2005:9).

This thesis will also focus on different types of schools in the Circumpolar North, and will look at outdoor education in the Arctic, the whale school project in Iceland, nomadic schools in the Siberian tundra, and how these types of schools are growing in some regions of the Arctic. Are the children in the small communities in the Arctic getting comparable education as the children in the big communities? Despite the fact that some of the children live deep in

the Siberian tundra for example, far away from the modern class room in the city, do those children get the education that they need? Is it possible for small communities to have the same quality of education as the larger communities or is it possible for the small communities to have it even better? Learning outdoors can be enjoyable, fun, challenging and adventurous and can help young people to learn by experience. Also by learning outdoors can help them to value and appreciate their natural and cultural heritage.

2. The concept of education

When we hear the word “educate” what do we think of? Do we unknowingly set our mind to a class room full of young children sitting at their desk learning from books and listening to their teacher? Let’s look at the word “education”.

Don Berg, founder of the Attitutor Services writes that the definition of education in overall sense is the delivery of knowledge, skills and information from one generation to another or from teachers to students. Education is any act or experience that has a formative effect on the character, mind or physical ability of an individual. If we look at the proper definition of education, then it is the process of becoming an educated person. Being an educated person simply means that you have access to optimal states of mind regardless of the situation you are in. An educated person is able to think clearly, perceive accurately and act effectively in order to achieve aspirations and self-selected goals. Education is a method of cognitive cartography, where you map your experiences and locate a variety of solid routes to optimal states when you find yourself in non-optimal states (Berger, 2011).

The old meaning of “educate” comes from Latin term *educate,* “to educate”, which is derived from a specialized use of Latin *educere* (from *e-*, out, and *ducere* to lead) meaning “to assist at the birth of a child”. The Inupiat Eskimo word for education is “inuguq” and literally means “to cause to become a person”. It refers to someone who takes care of the child in the formatives years and helps her or him to become a person (Okakok, 1989:4). When we hear the word “educate” we might think more of the primary Webster definition, which is “to provide education with training or knowledge, especially via formal education.” In the Western tradition, educating children depends heavily on a system of formal schooling, where you have to attend school until certain age. The concept of education for the Inuit has a lot in common with the Western concept of “child-rearing”. The Inuit perception is that Western child-rearing practices are too much controlling and directive, therefore intruding and interfering in the development of the child. The Inuit feel that the development of individuality is pressurized and in Western society and that childhood is prolonged (Okakok, 1989:5).

Education donates to the development of human capital. It is most apparent in its institutional form as schools. Education is not a neutral enterprise. It is the promotion of history, values, languages, skills, and ways of thinking and behaving (Rasmussen, Barnhardt and Keskitalo, 2004:67-90). The content of education is equally important, including how well it fulfills the

different levels of needs- regional, local, national, and global. And thereby contributes to the role that the social capital may have in a specific setting (Rasmussen, Barnhardt and Keskitalo, 2010:69). Looking at this we can see that education is one form of delivery of knowledge, skills and information from one generation to another, including art, science, sport, and other facets of culture, and that education is usually delivered in the class room. Not only is each additional year of education connected with higher earnings and better opportunities, but for instance, educated women in the Arctic are able to manage their lives better, they can have some control of the family´s financial situation (Rasmussen, Barnhardt and Keskitalo, 2010:69).

Today, the institutional form of teaching in schools is starting to change slowly, one way of teaching is to take the class room outside and have the children learn from their surroundings and to learn from their kinsfolk. This way of teaching is used in the arctic regions, but this form of teaching is also growing in the western countries, to have the nature, your history and your surroundings deliver knowledge, information and skills to the young students. The process of learning is influenced by the conditions under which learning takes place. School instruction where local cultural practices are used in combination with activities outside the formal classroom settings needs to be included as well and should be pinpointed when we characterize the educational system. If not, then the development process may be a continuation of the process of "difference blindness". If we ignore the significance of the whole perspective of the learning environment then that may lead to the loss of important elements of indigenous cultures and many rare languages. This understanding supports the general recognition that knowledge, like other resources, is localized and that learning is influenced by the environment in which the learning is taking place (Rasmussen, Barnhardt and Keskitalo, 2010:69).

In this thesis we will look at education in the Arctic and indigenous knowledge, how and if indigenous knowledge and Western systems of knowledge can cooperate together in school curricula in the Arctic. And finally we will learn more about outdoor education and nomadic schools in the Arctic region and see how those schools are functioning.

2.1 What is indigenous knowledge?

To come up with a convenient definition of "traditional knowledge" is indeed a very difficult task. But the term is often used convertibly with the terms like "indigenous knowledge", "local knowledge", "folk knowledge" and "traditional environmental knowledge". In addition to all of this the term "indigenous knowledge" specifically captures selections of understandings that emerge from different geographical locations, collective and individual histories and educations, and of course worldviews. Traditional knowledge can in fact be defined as the unified knowledge that originates from its culture and is characteristic of a particular society. Traditional knowledge is local knowledge; it is knowledge that is fostered by a group of people through generations of living in close contact with nature (Hunter, 2007:3).

Indigenous education applies to the inclusion of indigenous knowledge, methods, models and content with both non-formal and formal educational systems and often in a post-colonial perspective. The growing use and recognition of indigenous education methods might be a response to the disintegration and loss of indigenous knowledge and language through the whole processes of colonialism. Moreover, it can enable indigenous communities to "reclaim and revalue their languages and cultures, and in so doing, improve the educational success of indigenous students (Aikman, Sheila and May, Stephen, 2003).

At the local level traditional knowledge is used as the basis for making decisions about vital activities that concern environmental health, regulation and safety. Traditional knowledge includes biological resources, for animal breeds, and local crop, tree and plant species and mental inventories of local places. Also indigenous traditional knowledge in particular encircles belief systems that play a fundamental role in a peoples´ livelihood, like maintaining their health, and protecting and replenishing the environment (Hunter, 2007:4.) The two terms "traditional knowledge" and "Indigenous knowledge" are frequently used interchangeably. However, there is an important but yet subtle distinction between the two. Traditional knowledge can be developed over time in any culture or society, but Indigenous knowledge is the subset of traditional knowledge which is rooted in the fundamental distinction that forms the core of Indigenous difference: the Indigenous worldview (Hunter, 2007:4).

Indigenous knowledge is relational, spiritual and holistic, and it originates from multiple sources, including empirical observations, revelations and traditional teaching. Separately and together, these indicators set Indigenous worldviews apart from other worldviews and it is this unique worldview that is captured by Indigenous knowledge systems. The world is witnessing a growing recognition that indigenous and traditional knowledge is indeed an important resource that can truly benefit and serve the interests of both indigenous and non-indigenous people alike (Hunter, 2007:3).

Increasingly, there has been a big global shift towards recognizing indigenous models of education, both methods and content as an efficient alternative within the scope of many different education systems. To include indigenous models of education has come to sponsor a significant contribution to the success of those members of indigenous communities who choose to admit these systems, and who choose to do this both as teachers/instructors and students/learners (Indigenous education, 2011). As an educational procedure, the inclusion of indigenous ways of learning, knowing, instructing, training and teaching, has been examined by several postmodern and critical scholars as important to secure that students/learners and teachers/instructors-whether they are non-indigenous or indigenous-are able to benefit from education in a culturally sensitive manner that draws upon, promotes, utilizes, and increase awareness of indigenous tradition (Indigenous education, 2011).

For indigenous teachers or instructors, and students and learners, the inclusion of these methods often ascend educational effectiveness, learning outcomes and success by providing education that adheres to their own inevitable perspectives, worldview and experiences. For non-indigenous teachers and students, education using such methods often has the effect of raising awareness for the individual traditions and collective experience of surrounding indigenous communities and peoples, that way promoting greater respect for and appreciation of the cultural realities of these people and their communities (Toulouse, 2007:3).

In terms of educational content, the inclusion of indigenous perspectives, knowledge, worldviews, traditions and conceptions within curricula, textbooks, instructional materials and course books have largely the same effects as the inclusion of indigenous methods in education. Indigenous teachers and students both benefit from enhanced academic effectiveness, learning outcomes and success, while non-indigenous teachers and students/learners often have greater awareness, appreciation and respect for indigenous

communities and people in consequence of the content that is shared during the course of educational pursuits (Toulouse, 2007:4).

The importance of indigenous knowledge to modern environmental management is particularly needful in today´s world. Land management and environmental strategies traditionally used by indigenous peoples have continued relevance. For many generations indigenous people usually have lived in a particular bioregion and they have learned how to live in these regions sustainably. The presentation of indigenous methods of education and the inclusion of traditional knowledge also facilitate that those in Western and post-colonial societies re-evaluate the inherent hierarchy of knowledge systems. Indigenous knowledge systems were historically undermined by Western educators; however, there is a current shift towards the valuing of these traditions. The inclusion of aspects of indigenous education requires us to acknowledge the existence of multiple 'knowledge´s' rather than one, standard, benchmark system (Indigenous education, 2011).

There are many practical challenges surrounding the implementation of indigenous education. It can prove to be challenging to incorporate indigenous knowledge into formal western education models. However the conversation surrounding indigenous education and knowledge suggests that including indigenous methods in traditional modes of schooling is an "ongoing process of 'cultural negotiation', rather than a simple return to, or retrenchment of past practices"(May, 1999:3-4). To understand indigenous knowledge and its contemporary and historical relevance, it is critical to be able to identify and locate its many forms and practices. This assignment will be relatively easy to accomplish in some communities, but in others indigenous knowledge practices will unfortunately be more obscure (Hunter, 2007:5). As Aggie Brockman explains, "the Indigenous ecological knowledge base is highest in communities that have retained strong ties to the land, have access to and opportunity for subsistence harvesting activities, and use their Indigenous languages in their homes and communities". (Brockman, 1997:2)

2.2 Western knowledge and indigenous knowledge coalesce

"Despite their variations, different forms of knowledge can learn from each other"
Fulvio Mazzocchi.

In this chapter we will take a look at "Western systems of knowledge" and "indigenous knowledge" and how and if those two systems of knowledge can work together in the school systems in the Arctic regions. We have rediscovered that indigenous knowledge or traditional knowledge is a good model for a healthy intercourse with, and use of, the environment, and also a very rich source to be tapped into in order to obtain new perspectives about the relationship between nature and humans (Mazzocchi, 2006:463). Traditional knowledge has developed an idea of the environment that emphasizes the symbiotic character of nature and humans. This knowledge offers an approach to local development which is based on co-evolution with the environment, and also on respecting the carrying capacity of ecosystems. Western science is rooted in the Renaissance and philosophy of Ancient Greece and traditional knowledge systems have developed different strategies to transmit and create knowledge, and it is profoundly difficult to distinguish one form of knowledge by using the criteria of another tradition (Mazzocchi, 2006:464).

Western science favors method of reduction and analytical contrast to the more holistic and intuitive view which is often found in traditional knowledge. Traditional indigenous knowledge is spiritual and does not make distinction between sacred and empirical, but Western science is materialist and positivist. Traditional indigenous knowledge is mainly qualitative and subjective; much of Western science is quantitative and objective. The foundation of Western science is academic and literate while the foundation of traditional knowledge is oral and past down from one generation to the next by the elders. In most cases scientists separate themselves from nature, but indigenous people always depend on their conditions. Overall, traditional indigenous knowledge systems adopt more holistic approach, and do not separate observation into different studies like the Western science does (Mazzocchi, 2006:464).

The aggressiveness of Western systems of knowledge inherent in the colonial project have oppressed and marginalized indigenous traditional knowledge systems. Through settlement, Western knowledge systems have transferred the power to elaborate their knowledge systems as authoritative and universal, which has served to singularly legitimate its own knowledge

systems while at the same time delegitimizing other systems. This ethnocentric knowledge has been transmitted through government, academic and legal channels simply to promote capitalist, patriarchal and often ecologically destructive policies and practices that have undervalued indigenous traditional systems of knowledge (Hunter, 2007:6). Today there is a growing consciousness that Western systems of knowledge that are based on models of capitalism and industrialization, have contributed to a crisis of environmental degradation and unsustainability all around the world. Also at the same time, there has been a growing awareness of potential use of Indigenous traditional knowledge and values among, scientists, teachers and other academics, development planners and policy makers (Hunter, 2007:8).

The result of these social, cultural and legal imperatives, there has been a global movement towards the unification of Indigenous traditional knowledge with the Western knowledge. Originally, the interest in the role of Indigenous traditional knowledge was mainly focused on the knowledge itself and how that knowledge could be used to further Western developmental models, scientific models and theories. Recently, there has been growing recognition of the need to ensure a more balanced integration of Western systems of knowledge and Indigenous knowledge. Therefore it is no longer considered acceptable, if indigenous knowledge is utilized simply as an add-on to the Western knowledge systems, it is necessary to include it in more central and fundamental capacity (Hunter, 2007:8).

There is an increasing attention on Indigenous knowledge in the field of circumpolar research and policy-making. Of course such knowledge has always been important in terms of pursuing traditional activities of livelihood and survival, but it is now the object of great attention because of its applicability to modern environmental research and management (Hunter, 2007:9). Thereby there has been a enhanced interest in the development of programs that integrate Indigenous and Western systems of knowledge across a broad range of research programs and policy, including health care, social and criminal justice, education and environmental resource management (Hunter, 2007:9).

If we look at the policy shift toward the integration of Indigenous systems of knowledge and Western scientific systems of knowledge, it has highlighted a number of tension and conflicts between Indigenous and Western systems of knowledge that is hard to ignore. The executive director of the Northwest Territories council for Disabled Persons Aggie Brockman explains "that it is difficult, even impossible in some situations, to balance Indigenous traditional knowledge with Western ways of doing things or to incorporate the two systems effectively.

She states that attempts to do so often results in unacceptable compromises, usually for Indigenous people." (Hunter, 2007:9).

This shows us that it is difficult for many indigenous groups to let the two systems of knowledge work together in good harmony with each other. Furthermore, usually it is the Indigenous system of knowledge that has to step down for the Western systems of knowledge, so it is the indigenous people that have to try to accept unacceptable compromises and work with what is put in front of them. Therefore there are no easy solutions for the problems that appear in terms of the productive integration of Western and indigenous systems of knowledge. Carefully, each circumstance will have to be examined to secure that it is meeting the interests of its different stakeholders (Hunter, 2007:10).

Indigenous or Native people may need to understand Western science but they do not need to understand it at the expense of what they already know and the way they have come to know it. In the same way the non-indigenous or Native people need to recognize the cohabitation of multiple worldviews and knowledge systems. We need to find ways to comprehend and relate to the world in its complex dimensions and varied perspectives (Barnhardt and Kawagley, 2005).

Let's end this chapter with the words from Leona Okakok (1989) where she is looking at education for young indigenous people in the United States

> "Parents, recognizing the inevitable encroachment of the Western way of life upon Inupiat land and culture, reluctantly released their young into the hands of schoolteachers, who assured them this was best for their child. We respect the judgment of these newcomers to the area – teachers and ministers – because they were the authorities on the new way of life….We did not realize that their objective was to educate our children enough to reject their own culture and to embrace the "more civilized" Western way of life. With this purpose firmly in mind, Western education began for our young".

Educating a child means equipping her or him with the capability to succeed in the world that she or he will live in. In the Inupiat communities which Leona comes from, this would mean that the child would not only learn academics, but also how to travel, camp and how to harvest wildlife resources with the elders and extended family, as well as learning about her or his community and regional institutions, governments and corporations, and significant issues in the social and economic systems. It is important to recognize also the role of other "teachers" who could be the community, grandparents, parents and church members: It is also

necessary to recognize the hours the children spend away from the classroom; those hours are as much a part of their education as the hours they spend in the classroom. This simply means to teach them how to use any situation as a learning experience (Okakok, 1989:2).

3. The need for education in the Arctic

Education provides the necessary skills for a higher level of productivity among people in both the marketplace and the household (Rasmussen, Barnhardt and Keskitalo, 2010:68).

Education should without any doubt be very important indicator for human development in the region of the circumpolar north. We should acknowledge that both northern skills and values are conveyed to northern students in many different ways. We should also be aware that the intensity of globalization, for example the internet and satellite television are bringing the world to northern students, and those forces are forever changing what we know as northern skills and values. Traditional education or Indigenous education existed before outsiders had contact and will continue to exist as part of Indigenous mixed economies, cultural practices and traditional systems such as food systems (Johansson, Paci and Hovdenak, 2004:170).

The North has in general been perceived as an outskirt, and investments in education have historically been done from a "frontiers and help" perspective, with exceptions in several countries. The governments of the Arctic countries have met the challenges of the north with school systems that are in many cases identical to the school systems that are provided in the larger towns in the south, and seldom have these educational systems been adapted to local needs for the people in the north. Many arctic communities, and especially in the rural areas are facing high drop-out rates in secondary and primary schools. There is a history in all of the Arctic of an education system that tried hard to force central school models on local people, that includes different degrees of suppression of local language. There is a clear correlation between levels of education and income in the Arctic. Those who finish ordinary school education and those who receive good training in traditional skills through non-formal education have better finances than those who drop out from ordinary or traditional forms of education that is why it is no surprise that those who have higher education have the highest income in their community (Kullerud, 2009:236).

Indigenous communities may have different expectations for schools than teachers or school administrators, which can reduce local capacity. It is vital that the educational goals of the school reflect the goals of the community. We all know that schools prepare students with skills so that they will be able to "live a good life". In addition of formalized schooling, traditional education systems continue to bring spiritual values and Indigenous cultures. The primary values or traditional education systems at the heart of many traditional teachings are

more increasingly playing a big role in the classrooms in northern Canada for example, there the Inuit students, for example, can learn biology by preparing a seal, and then eating it as well as studying it (Johansson, Paci and Hovdenak, 2004:175).

Often education is seen as an arena where different social groups are struggling for influence, often in subtle ways. Education should be seen as an important indicator for human development in the Circumpolar North, the key issue being empowerment. Primarily, empowerment of individuals enables an extensiveness of students to continue past primary school to secondary school graduation, and even in some cases, beyond to post-secondary institution and technical colleges. But then again, empowerment of the communities enables them to react to continuous changes in a manner where education serves both the internal and external requirements. But the most critical concerns are for access to education, relevance and for control (Rasmussen, Barnhardt and Keskitalo, 2010:70). These three concerns are readily impacted by the acknowledgement of distributed knowledge and the need to adapt education services to fit local conditions and local needs. "The shift from viewing knowledge as a standardized commodity to seeing it as a distributed resource has lead to pressures for decentralization of control and decision making, local adaptations of curriculum, and increased use of technology to access knowledge from any place at any time (Johansson, Paci and Hovdenak, 2004:183).

It is important however to remember and to emphasize that empowerment is a multi-dimensional concept leading to various consequences. An individual may be empowered to fulfill an important function in the community, and thereby enabling her or him to stay in her/his community. But that person may just as well be empowered to leave the community, and go look for sufficient opportunities and challenges elsewhere. Education can bring "the outside into the community" but if the social system is not capable to accommodate this, it may as well lead to "bringing the education to the outside" (Johansson, Paci and Hovdenak, 2004:183).

By focusing on better education for the arctic people, we will be bringing more and better information to the public worldwide. It is well known that climate change is taking place around the world and having strongest impact within the Arctic. But the remediation of climate change and pollution will take decades. With pollution in mind, it is essential not to just sit back and wait for these changes to come. The Arctic must take action and ensure an acceptable quality of life. As the quality of arctic life keeps being impacted by climate

change, it is important to help arctic people to live under improved conditions. The utmost way to help those who are at risk is through the promise of employment. Jobs that show promise in Greenland, for example, include IT and tourism sectors, but solid working knowledge of Danish and English is needed for jobs in the field of information, technology, and it is also important to note that English is the language of travel and tourism throughout the entire sector within Greenland. However, it can be very difficult for students to acquire sufficient educational support from either family or the government, and without financial resources from these social safety nets, it is more likely that students often just give up and decide to return to their small settlement and the life which is contingent upon the whims of nature. It is therefore crucial for people in the arctic region to have the opportunity to get further education, so they can gather information from their studies and local knowledge about the changes which are taking place in the arctic region (Andreasen, 2009: 224-246).

Education can also be an important tool for renewal and we have shown that education is implementing a significant role in northern development and rehabilitation. Control of one´s cultural continuity, destiny and contact with nature are elements that could be measured by the extent of indigenous languages spoken in schools. We need to look at school instruction by using cultural practices, but also by using activities outside formal school settings. Access to education has increased over the past 30 years or so in the Arctic, with new universities being established in the northern regions, increased use of distance education and various initiatives for circumpolar cooperation. Still, this access improvement is very uneven, in many regions of the Arctic there are very few or no opportunities for post-secondary education, e.g. in parts of Canada, Siberia and the Russian Far East (Johansson, Paci and Hovdenak, 2004:183). In many regions where Indigenous peoples form the majority, the formal content of education, the language of instruction and curriculum, and possibly even the textbooks and other educational supports are based on their culture and language. But then again where Indigenous people form minority, they are all too often marginalized (Johansson, Paci and Hovdenak, 2004:170).

Indigenous groups face severe challenges finding reliable and relevant solutions for their education needs through mainstream infrastructures where they have been historically under-represented in the ranks of university and college in both Canada and the United States. Similar understanding has been highlighted by other groups that have been left in marginalized situations, such as remote and rural area inhabitants, as well as cultural and linguistic minorities generally. But most of all, the Indigenous populations are likely to

become marginalized if institutional and public policy concerning formal education ignores the need for a various approach to the values and forms reflected in education (Rasmussen, Barnhardt and Keskitalo, 2010:77). School systems provide an educational model based on Western content and values. Traditional and local knowledge is only valued in good-will speeches and is normally not valued in admission to further education, jobs or in evaluations of education systems. "Decentralization of control and decision-making in education is needed, as are local adaptations of curriculum, and increased use of alternative approaches to access knowledge from any place at any time" (Kullerud, 2009:237).

In Canada governments have provided Inuit with college programs for over three decades. The primary purpose in providing education, particularly post-secondary education, has been to make it easier for Inuit to be assimilated within the socioeconomic structures and broader cultural structures, of the rest of Canada. "When and if Indigenous knowledge and pedagogy is included within formal college courses and programs, it is viewed as a way to more successfully transmit standard curriculum". Historically, education programs related to Indigenous culture and knowledge were not formally assimilated into the college system and were distinguished to be less important than the discipline-based curriculum (Cowan, 2003:89). With this conclusion let's focus on higher education in the Arctic in next chapter and take a look at how it is for indigenous people to get higher education at the Circumpolar North.

3.1 Higher education in the arctic

Access for northern students to post-secondary education varies a great deal across the Arctic. In this section we will take a look at higher education in the Arctic region. In North America, the University of Alaska is based in Fairbanks and Anchorage, with urban campuses in the smaller communities, but in northern Canada there are no universities, there are research institutes and colleges. Students in northern Canada have not the opportunities to attain a Bachelor of Arts or Science degree unless they take courses from southern universities, purchased by their northern colleges and taught by sessional instructors, or unless they simply leave the north. Many people in the north, particularly in rural regions have been receiving distance education. The best way to have young people stay in their region is to train "local people", this way it would be more likely that they would remain in the region after they graduate (Johansson, Paci and Hovdenak, 2004:179).

Looking at the education form in Canada before the World War II, the government had a "hands-off" approach to the Inuit in Canada´s Far North and there was little perceived need for formalizing education in the Arctic or for integrating the Inuit into Western culture. Therefore, no national educational system was introduced in the Arctic until the late 1950´s. By this time the federal government started to build permanent settlements in the North, and to encourage the Inuit to move from the land and to these new communities, and because of this they urged them to attend government supported schools. The effect on the Inuit was very dramatic and it has been described as a move to the space Age from the Stone Age in just a couple of decades. An entire generation lost their traditional survival skills and reduced their native language skills, primarily as a result of the new school system and "foreign" curriculum. But by the 1970´s the Inuit began to organize politically not only in Canada but across the Circumpolar North and therefore taking back control over their own economy, governance and education. But the education form in the Circumpolar North is still not perfect, and now it is also important to focus on higher education in the Arctic (Fabbi, 2005:761).

If we look at post-secondary education in the circumpolar region, there are regional differences in the percentage of people in the North with post-secondary education. The Circumpolar North has been characterized by very different historical inheritance of post-secondary education, this leads to a situation where the Nordic countries and the Russian North have a relatively high proportion of the population with post-secondary education, but

meanwhile parts of Canada and Alaska are showing relatively low levels. While in both regional and minority development, post-secondary education has been emphasized as an important tool, a similar trend has been entered into or has even been missing in substantial parts of the North American continent (Rasmussen, Barnhardt and Keskitalo, 2010:78). When considering the effects of post-secondary education in particular and formal schooling in general, there is a need to differentiate between what is needed to build sustainable and viable community, and what may be considered a success for the individual alone. It is also very important to examine and look at post-secondary challenges in the North in the perspective of the most significant features of the sub-Arctic and Arctic regions; this would be scattered and small communities of indigenous populations for which the area is their homeland and that exist on traditional economies (Rasmussen, Barnhardt and Keskitalo, 2010:85).

Higher education can build sound cultural capital for the integration of the people into the wider surroundings and higher education can contribute to a positive identity formation for the individual, based on understanding the totality of the individual and community needs. Therefore, the cultural, social, economic and political outcomes are connected to the expectations of a formal education system. It is a small value to a community to have educational opportunities available locally, only to see the young people who graduate leave the community due to lack of opportunities to use their knowledge and skills in their community, or because there is a dissatisfaction with the quality of life in their community. Education that leads to a brain drain in the community is an indication of a poor fit between the opportunities and aspirations of the people and the educational services and community being served (Rasmussen, Barnhardt and Keskitalo, 2010:84).

There has been an essential development in northern higher education, and that is: thinking in terms of circumpolarity, and the increased interest in the use of communication and information technology, also the growing interest in open learning networks. This is reflected in the Northern Research Forum and in the University of the Arctic. Both the University of the Arctic and the Northern Research Forum have been working hard in raising knowledge of both cultural and natural circumstances of the Arctic and they have been promoting conversation among members of the research community and also among other stakeholders in the Arctic, because of this they have been praised by the arctic education ministers. The University of the Arctic is a network of universities, colleges and other organizations that are committed to research and higher education in the northern regions. More information is to be found at their website: http://www.uarctic.org (Johansson, Paci and Hovdenak, 2004:181).

There is a general trend in the Arctic toward centralization and bigger units both in the public and private sectors. This poses a common challenge when aiming for sustainable development of the sparsely populated arctic region. In higher education this trend is also evident, larger universities provide the advantage of more comprehensive programming, the capacity to develop world class research in some areas, and the capability for them to promote themselves in a competitive education and research market. The less inhabited area in the North cannot easily host general professional education institutions and universities of a size that can match this development. However the total size of a university is not what determines its excellence in a given area in a specific time, because good research groups tend to be unpresuming in size. Lars Kullerud (2009) in his paper about "education for arctic sustainable development writes;

> The circumpolar network of smaller and larger institutions can form the critical mass for expertise in any field by their collective size. Through a well organized network, partnered universities will be better equipped than any single institution, even if it is large, to develop and maintain world class excellence in several disciplines as well as foster education, research and training that is relevant to sustainable development of the Arctic region.

This is a good point from Kullerud; if the network is very well organized in the arctic region universities will be better equipped and the students will have better opportunities for good education, research and training. With better opportunities in education in the Arctic young people have better opportunities for getting work (Kullerud, 2008:237). But unfortunately there are both educational and economic barriers for Indigenous people as they pursue goals of enrollment in higher education, programs and degree completion. The leaders of the American Indian Higher Education Consortium & Institute for Higher Education Policy claim that the ultimate reason why there are so few American Indians situated in higher education and why there is so low degree attainment are the socioeconomic conditions resulting from federal policy regarding Indigenous people (Shield, 2004-2005:114).

In addition to the federal policy issue, socioeconomic conditions and historical forces, there are other perspectives that are important to understand concerning indigenous educational experience. Low levels of academic achievements of indigenous students and high dropout rates are not due to the inability to adjust, to cultural impoverishment, genetic inferiority or cultural differences, but it lies in "cultural discontinuity" according to Agbo (Rosemary, 2004:115). Let´s take a better look at what Agbo writes about cultural discontinuity in Rosemary Shields paper, he writes:

> Cultural discontinuity is a concept that asserts that Indigenous peoples experience *reality* in a way completely different from the dominant culture, and consequently, the magnitude of the incongruence of realities Indigenous peoples often experience within the dominant culture can be devastating to the Indigenous sense of self and experience of being in the world (Shield, 2004:115).

Today the people of the northern regions are no longer just object of study; indigenous people and other northerners together are taking active part in governance and in development of the regions, and also in identifying research agenda for the North with "shared voices". Therefore the higher education institutions in the circumpolar North formed the University of the Arctic the University allows for a great development of the shared education systems through this kind of collaboration. The smaller learning centers can provide suitable education for people who are looking for higher education within their region or community, and higher education can become based on curriculum that is developed through circumpolar collaboration (Kullerud, 2009:237-238). The University of the Arctic offers mobility programs to enable northern students; it also offers the promise of post-secondary education based on information and communication technology, "a university without walls," as well as faculty exchange. The inclusion of Indigenous people in its governance structure is a specific feature of the University of the Arctic (Johansson, Paci and Hovdenak, 2004:182).

The global research community, including those who are located in the southern latitudes and wish to study in the North, will gain from partnering with the Arctic higher education and research structure and extended well-educated northern population. We should especially aim at one particular goal, that the future leaders of polar science are just as likely to be recruited from the North as from the southern-based research communities as it is today. The University of the Arctic is engaged to ensure that the northern colleges and universities become essential in the sharing of knowledge and development in and about the North and that knowledge is based on local traditional approaches and indigenous knowledge a long with modern science approaches to knowledge generation and sharing (Kullerud, 2009:239).

> In the high Arctic the pattern historically has been that accessing post-secondary education meant exporting the potential future intellectual capacity from the north to higher education in the south. Where there were candidates for higher education, the tendency was for the individual to leave the community and submit to a cultural makeover, in many cases not to return with the achieved professional skills that could have been of value to the community. (Rasmussen, Barnhardt and Keskitalo, 2010:87).

It is critical to serve the post-secondary graduates who remain in or return to their community after graduation, and therefore it is necessary to have good coherence between longevity in the community and educational attainment.

3.2 Cultural heritage in arctic education

> Identity enactment is the way individuals behave – consciously or not – in order to show who they are when relating with human and non-human elements in their environment. It is also the way people react to this behavior. Identity thus lies in dynamic interaction (Dorais, 2005:3).

Identity may be considered as the way human beings associate to their surroundings, and distinguish their own position within this relation, either as members of a group or individuals. According to the nature of the relation, identity may be considered social, that is it may be based on gender, age, income, profession, or culturally linked to world values, world view and collective practices. Identity may also be considered national, ethnic, linguistic or other. An individual can therefore have several identities, according to the various relations in which she or he is engaged. "Identity is one´s constructed relation to his/her *environment*" (Dorais, 2005:3).

Different belief systems traditional, indigenous and local have been used to show that communities have gathered knowledge over generations of living in a specific environment, encompassing all forms of know-how skills, knowledge, technologies and practices, but this facilitates the community to accomplish stable livelihood in their environment. This has allowed peoples cultures and communities to survive. However, this knowledge has not normally been assimilated into formal education systems, even though it is very important for the sustainability in both indigenous and local communities of the Circumpolar North and should in fact be recognized as essential part of the formal education systems (Rasmussen, Barnhardt and Keskitalo, 2010:85).

Traditional indigenous education existed before the outsiders had contact and will continue to exist as part of traditional systems such as food procurement, indigenous cultural processes and mixed economies. For many Arctic indigenous students, English, Danish or Russian is their second language. And in many cases students will spend the entire day in classrooms with friends, family members and all the children of their community. But more imperatively, the languages and culture of indigenous students are no longer forced to fit into dominant language parameters. For indigenous education the school house is not the main location, indigenous people mainly educate their children in their first language, while embedded in communities and families by cultural practices at variable stages and under a mass of influences that continue to unfold over time. The common view in indigenous culture is that: "it takes an entire community to raise children", but now the indigenous people are faced with

the fact that there are schools among other influences such as satellite TV, and they are faced with the questions? What new or old possibilities exist for the preservation of culture (Johansson, Paci and Hovdenak, 2004:176).

In North America many English-only spokesmen are guided by the view that the primary responsibility of the schools is to prepare children to function in the dominant society. However an increasing number of minority-language groups are refusing this attribution position. Indigenous people believe that school should support and reflect the heritage cultures of the children that the school serves. Heritage-language education is often seen as a temporary variation phase that assists the child´s assimilation to the educational conditions and into the societal dominant language but usually that language would be English. For the groups who replace their heritage language by the dominant language in that society (in most cases English), usually means the end or death of the heritage language itself and by expansion represents a significant threat to their cultural existence (Macarthur, Taylor and Wright, 2000:63-64).

Representative of this case are indigenous groups, but in many cases the languages of Native Americans or Canadian First Nations children are replaced by the English language, therefore these languages are in many cases lost from the people and that elevates the debate in language education. It is not only the impact of heritage language loss on just the individual child, the child´s family or the community, but on all the people. In Foster study (1982) and Priest study (1985) they both found out, that for many of the indigenous groups this issue is already decided. Most of the many languages spoken in pre- Columbus North America for example have been lost or stumble on the brink of extinction (Macarthur, Taylor and Wright, 2000:65).

But there are a few remaining Native groups where the heritage language is both functional and vibrant, for example in the case of the Inuit in Nunavik and their language Inuttitut some researchers say that the Inuttitut language has the potential for a long-term survival. For these groups formal education´s role as an agent of linguistic conversion raises urgent concerns, with the culture and their heritage language hanging in the balance. Most Inuit are very much aware of the reality that knowledge in a mainstream language, i.e. English or French or even both is an important key to success and future opportunities. However for most Inuit it is necessary to preserve their heritage language; the goal of maintaining the heritage language is equivalent to the goal of learning a traditional language. This is reflected in the self-

proclaimed ordinance of the local Inuit school board to develop a curriculum that preserves and endorses native language, culture and traditions and prepares students for active involvement in the modern world (Macarthur, Taylor and Wright, 2000:65).

Let´s take a look at "Cultural Reciprocity", but in Christine Wihak´s paper *Culturally Relevant Management Education: Insights from Experience in Nunavut* she writes:

> Cultural reciprocity involves demonstrating an interest in and respect for cultural diversity, being highly sensitive to student's expressions of friction about valued beliefs and behavior, articulating his or her own experience of cultural conflicts, and examining the roots of such conflict in underlying differences in world view (Wihak, 2005:338).

With this method, organizational behavior courses can be taught as experiments in cultural creativity. Rather than rely on written curriculum materials that reflects simply Euro-Canadian culture, respected Elders in the community, Inuit business people and Inuit public servants are instead invited to participate in a program to make an oral curriculum for Nunavut as co-instructors or guest speakers. The lived curriculum can thereby actively support the genesis of new developments in Inuit culture, one that is appropriate to the contemporary workplace. Indeed, the discourse between Inuit and non-Inuit might accelerate a development process as the disagreement resulting from cultural differences produces opportunities to make Inuit cultural beliefs and values distinct in a new context (Wihak, 2005:338).

Indigenous people in Canada have in many ways experienced schools as tools for assimilation; there was a time when education was used to damage indigenous culture. But still, despite everything at the heart of indigenous educational practices much of the experiential learning of oral traditions persists. Development of indigenous curriculum within the school system is an important trend in this respect and, for example, primary schools have been offering indigenous students curricula that will strengthen their knowledge about their own cultures. This is done in Inuit communities in the Northwest Territories where they follow Inuuqatigiit, which is a culture-based school curriculum. It is similar in Dene communities in Canada where the subject is being complemented with "Dene Kede" but that is a curriculum produced by Dene Elders and teachers from the five Dene regions (Johansson, Paci and Hovdenak, 2004:176).

> Teachers are expected to use Dene Kede curriculum as a guide in the creation of community – relevant course content. Each teacher has to interpret the expectations in terms of what is

> specific to his or her community, and use the language(s), material resources, and people of the community to bring the curriculum to life. The extent to which the curriculum is used in a school depends on the desires and needs of the community (Johansson, Paci and Hovdenak, 2004:176).

The culture-teaching assistant is often the one who teaches the culture -based curriculum, and that teaching assistant is also a community member. And increasingly these teaching assistant have received degrees from one of the southern teaching universities or from one of the northern-based colleges. The indigenous languages are often taught by local community members many of whom have university or college education nowadays, if not then they have teaching certificates. The Nunavut government for example has set a hiring quota for Inuit, but this may reverse the need for in migration of teachers from Southern Canada. It happens more often that teachers come into schools with no specialized training and the only possible language of instruction is English, but we know that if the language of the instructor is not the language used by the students the small indigenous languages are in danger (Johansson, Paci and Hovdenak, 2004:176).

Northern Canada has been facing a major challenge in availability of teachers, especially the challenge of getting teachers with knowledge about the local language and cultures. Many of the teachers that go north have no indigenous language training and in many cases they have very little understanding of the ecology of the community they fly into and its history. This does not in any way mean that the teachers are necessarily doing a poor job, many of them are very experienced teachers and energetic and often they remain in these communities for many years, becoming important members of the community. However, to produce a generation of Canadians knowledgeable about indigenous languages and culture more efforts are needed (Johansson, Paci and Hovdenak, 2004:176).

Indigenous education should meet three important goals: first, to promote indigenous identity among new generation of ethnic groups and culture, as every child should have the right to educate in her or his native language, and also on the foundation of his or her own culture, second, to focus on openness to other cultures, and third, the education should meet the requirements and needs of international educational standards and modern development (Johansson, Paci and Hovdenak, 2004:177).

4. Naturalistic education among the indigenous people

In 2003, the U.S. Commission on Civil Rights issued a comprehensive report entitled A *Quiet Crisis: Federal Funding and Unmet Needs in Indian Country,* in which the following conclusion was drawn with regard to education of Native American students:

> As a group, Native American students are not afforded educational opportunities equal to other American students. They routinely face deteriorating school facilities, underpaid teachers, weak curricula, discriminatory treatment, and outdated learning tools. In addition, the cultural histories and practices of Native students are rarely incorporated in the learning environment. As a result, achievement gaps persist with Native American students scoring lower than any other racial/ethnic group in basic levels of reading, math, and history. Native American students are also less likely to graduate from high school and more likely to drop out in earlier grades (Barnhardt and Kawagley, 2005:10).

Northern skills and values are transferred to northern students in a number of ways. But also, the forces of globalizations, the internet and satellite television for example are bringing the globalized world to the students in the North, and therefore forever changing what we know as northern skills and values. We are also aware that traditional practices and traditional cultural values will continue to persist, because of adaptation inherent to the very nature of indigenous culture. Moreover, we can imagine the changes coming to the North, and we have seen this change, in the arctic environments and in development pressure in migration (Johansson, Paci and Hovdenak, 2010:169-170). For most of indigenous people in the North and the native students, the formal schooling has been administered and designed by non-native outsiders; nevertheless there is still curriculum in the Circumpolar North where the elders are brought together. The women, fishers and hunters who are knowledgeable of traditional ways of the land, gathering, hunting and homemaking of their people meet the native children and teach them their native history along with the Western traditions of music, art, economics and science. It is essential for every society to preserve their history and have the elders teach the young people their heritage (Andreasen 2009:241).

Indigenous and native people around the world have, for most parts that is, demonstrated a distinct lack of eagerness for the experience of schooling. That is, schooling in its conventional form, the curricula, assessment strategies, teaching methodologies associated with mainstream schooling are based on a worldview that does not sufficiently appreciate or recognize Indigenous notions of an interdependent universe or recognize the importance of

place in their societies. Indigenous people have their own way of relating to and looking at the universe and the world. Their traditional education approach was carefully constructed by adapting modes of survival, observing natural processes, obtaining sustenance from the animal world and the plants, and by using natural materials to make their tools and appliances. All of this was made understandable through observation and also demonstration, escorted by thoughtful stories from elders, in which the lessons were preserved, but unfortunately indigenous and native views of the world and their approaches to education have been jeopardized by the distribution of Western institutionalized forms of cultural transmissions and the spread of Western social structures (Barnhardt and Kawagley, 2005:10).

Lately many non-indigenous and indigenous people have begun to identify the limitations of education systems that only work one way for one culture, but do not work at all for another or so called "monocultural" system, and therefore new approaches have begun to surface that are contributing to our understanding of the relationship between Western ways of knowing and formal education and the Indigenous ways of knowing. The challenge now is to come up with a good system of education for all people that respects the pedagogical and epistemological foundations which are provided by both Western cultural traditions and Indigenous traditions (Barnhardt and Kawagley, 2005:10).

Focusing on the Native Iñupiat in Canada, there was no such institution as a school in Iñupiaq society, and learning was experiential. The young people learned the Arctic survival skills and social behavior from their community and from their family. This is why the process of education was naturalistic and all-encompassing, because in reality, school was life. But this all changed with the emergence of Western-style schooling in the Arctic, and then all of a sudden emerged a dichotomy between life and education, and between community and school (Subramony, 2006:117).

Indigenous people participate in a form of science when they are involved in the activities connected to their livelihood; indigenous people know a great deal about and have studied the flora and fauna, they also have their own classification systems and versions of physics, meteorology, earth science, chemistry, botany, astronomy, psychology and the sacred. As a matter of survival, indigenous societies have long sought to understand the regularities in the world around them, and also recognizing that nature is underlain with lots of unseen patterns of order. If we take another look at the Natives in Alaska, because it is necessary for them, they have made detailed observations of animal behavior, including the Caribou´s curiosity,

and they have learned to adapt and solve to the constantly changing patterns of seasonal and weather cycles. The native elders have long been able to predict the weather just by observation of subtle signs that presage what subsequent conditions are likely to be. Native people have noticed that the weather´s dynamics are much like the mathematical characteristics of fractals, where we can see that the patterns are reproduced within themselves and the parts of a part are also a part of another part that is yet a part of still another part and so on. All learning can begin with what the community and students know and have experienced in their everyday life. Indigenous students, as with most students will become more stimulated to learn when the subject matter is based on something that is useful for them in the livelihood of the community, and if it is presented in a way that reflects a familiar worldview (Barnhardt and Kawagley, 2005:12).

4.1 Outdoor education

"Outdoor education usually refers to organized learning that takes place in the outdoors" (Outdoor-education,2011).

Outdoor education can simply mean *experiential learning in, for, or about the outdoors.* But the term "outdoor education" is used more broadly to refer to a range of structured activities that take place in a various ways, primarily in outdoor environments. It is difficult to find a common definition of outdoor education, because the interpretation of the word varies according to philosophy, culture and local conditions. The word "outdoor education" is often referred to as synonymous with adventure programming, adventure education, outdoor school, outdoor learning, expeditionary learning, experiential education; those are just a few terms that are associated with outdoor education. Agreement about the meaning of these terms referred to above are also difficult to implement (Outdoor-education, 2011).

Outdoor education usually consists of programs that provide the students with opportunities to become environmentally conscious persons, nonetheless, awareness of environmental issues are usually not enough to conserve our world of limited natural resources. Students must be ready to recognize their responsibilities to the environment and act upon them, that means that they need to behave in a way that sustains and nurtures the natural environment and they need to consider the needs of others. Having such sense of environmental commitment can lead to a potential outcome of outdoor education under certain circumstances (Yerkes and Haras, 1997).

"Education outside the classroom" is a good way of describing school curriculum learning where there is a class full of students NOT sitting in a room with teacher and NOT learning from books. Outdoor education gives the students a chance to go on a biology field trip and search for insects in the school garden for example, or visit a museum. In the United Kingdom the Education and Skills Committee of the House of Commons has announced that outdoor education brings art and history to life, develops social skills, and obviously enhances science and geography (Outdoor-education, 2011).

Even though there is evidence supporting an enlargement of outdoor learning for children, there are plenty of obstacles in the way. And one of these obstacles is risk aversion midst parents, teachers and others; this raises reluctance to such physical and diverse task. Another

thing that prevents outdoor learning is high cost of offering outdoor learning. When adults focus on what children need to be able to do rather than what children need to have, maybe outdoor learning will become more effective. This approach takes into account experience rather than equipment and places children at the center of learning and insures that individual children´s developmental and learning needs are taken into account of and fulfilled effectively (Outdoor-education, 2011).

Some typical aims of outdoor education are that; the students will learn how to overcome adversity and that student will learn how to increase personal and social development and also learn to develop a deeper relationship with nature. Outdoor education includes the three domains of others, self and the natural world, but of course the emphases of these three domains can vary from one program to another. An outdoor teaching program can for example emphasize one or more of the following; teach outdoor survival skills, enhance teamwork, improve problem skills, develop leadership skills and understand natural environments (Outdoor-education, 2011). One of the main purposes of "outdoor education" is to provide significant perspective experiences, in both constructed and natural environments, that expand and complement classroom instructions, which tends to be controlled by electronic and print media. Outdoor education is a broader term than "environmental education" which can be described as training toward developing a citizenry, who is prepared to live well in a place without destroying it; also environmental teaching can occur both outside and inside the class room (Woodhouse and Knapp, 2000).

There are some common features of adventure programs such as wilderness or backcountry settings, small groups of students or less than 16 in a group, assignment of a variety of mentally and/or physically challenging objectives, frequent interactions that could involve group decision making and problem solving; also there would be a nonintrusive trained leader, and the duration of the teaching could be from 2 to 4 weeks. But what is the most striking common denominator of adventure programs is that they usually involve doing physically active things and usually away from the person´s everyday environment. There are many names for these activities, including adventure education, survival courses, placed-based education and field–based education (Hattie, Marsh, Neill, and Richards, 1997**).**

The term placed-based education is a rather new term, and it just appeared in the education literature, nonetheless, progressive educators have been promoting the concept for over 100 years. For example, in his book "The School of Society" John Dewey recommended approach

to student learning in the local environment. Usually placed-based education includes traditional outdoor education methodologies as recommended by John Dewey, to help students to connect with their specific corners of the world (Woodhouse and Knapp, 2000).

Understanding the relationships among outdoor education, environmental education and placed-based education is worthwhile because each term has been developed somewhat separately by educators who have produced instructional practices and curriculum materials that could be useful within the other concept areas. But to complicate this potential exchange further is the variety of labels that have been applied to each of these approaches. In this context, if we look at the field of outdoor education and how it matured it was marked camping education, school camping and, in the end outdoor education. In the same way, placed-based education has also been referred to as "ecological education," "community-oriented schooling," and "bioregional education". Placed-based educators think that education should prepare people to work and live to support the ecological and cultural integrity of the places they inhabit (Woodhouse and Knapp, 2000).

There is a rich history around the use of outdoor experiences for educational purposes. Plato praised the virtues of outdoor experiences for developing healthy bodies, which would then lead to a healthy soul. Like with many other outdoor adventure programs, Plato considered that the aim of physical education was not mainly to increase physical skills and that outdoor education had a higher educational value: "The moral value of exercises and sports far outweighed the physical value" (Plato, 1920:6). Concerning the origin of modern adventure education, the outdoor education pioneer was Kurt Hahn, a German educator who founded many outdoor education schools in Germany, Scotland, Wales and Edinburgh, and by 1995 there were 48 schools on five continents. Outdoor education is still growing all over the world and in all continents (Hattie, Marsh, Neill and Richards, 1997).

Eric M. Riggs predicates the following in his paper "Field-based education and indigenous knowledge: Essential Components of Geoscience education for Native American communities".

> One the most powerful teaching strategies in an indigenous context is the use of the local field environment, especially on lands that have been occupied and managed by indigenous people for generations. In all the projects in North America to date, this has been a common theme, and elsewhere in the world with other indigenous population, this is also the case. The field is one of the easiest teaching environments in which to make connections between scientific and

indigenous knowledge, and it is also one of the best places to explore the interaction of Earth systems.

Participants in outdoor education can become more conscious that they are truly a part of a greater ecosystem and are not as bound by social norms and customs. Participants can be true to themselves and more able to see others as people regardless of class, race or religion. Outdoor education also helps students install the basic elements of teamwork, because students that participate in outdoor education often need to rely on others and work together. For many an outdoor activity may stretch their comfort zone, which then would cause them to challenge themselves physically which in turn can lead the student to challenge themselves mentally. Outdoor education takes place in one form or another in most if not all countries of the world (Outdoor-education, 2011).

4.2 Outdoor education – the Whale School project in Iceland

Outdoor education has been developing and growing in Iceland since the year 2005 when several schools both in Reykjavík and in other regions of Iceland started to introduce outdoor teaching for their local schools, and the schools started to introduce curriculum for both preschools and elementary schools. The beginning for outdoor teaching in Húsavik, where the children started to go out of the class room and work in nature and learn from their surroundings started in the year 2007. We will now take a closer look at outdoor teaching in Húsavik and our focus will be on the Whale School in Húsavik.

There is a growing school project in Húsavik Iceland that started in 2007 when Hermann Bárðarson, the inventor of the project came up with the idea on having in Húsavik, his home town, an outdoor school for young children that go to the local primary school and for children in the neighborhood community primary school. The goal of the environmental school "Man and Earth" is to give individuals the opportunity to exercise outdoor study in both their school, and life attendance so the individual can cultivate with himself integral nature and community awareness. The role of the environmental school" Man and Earth" and the two sub-schools that belong to environmental school is to offer individuals choice and a specialization in coherence with need of that individual and his interest (Outdoor-education, the whale school project in Iceland, 2007).

The environmental school "Man and Earth" has two sub-schools, those schools are dedicated to the nature and their aim is for the children to learn from their closest surroundings, simply by going out of the class room and have the environment teach them. Those schools are the Whale School and the Salmon School; those two sub-schools have both been active since the summer of 2007. The two sub-schools that belong to the Environmental School have been focusing on teaching children in 5^{th} grade or children that are ten years old in the Whale School, and children in 6^{th} grade or eleven years old in the Salmon School, the goal of both the Whale School and the Salmon School is to be able to offer projects for both younger children and children who are in the middle school level or even student´s in the local college (Outdoor-education, the whale school project in Iceland, 2007).

Hopefully in the near future there will be other "sub-schools" in the Environmental School project, that way there will be an integral Environmental School that will cover diversity of natural and cultural heritage of the local area around Húsavik, plus the school project will cover all educational levels. The role of the sub-schools would also be, to offer individuals

alternatives and specialization according to her/his needs and interest. The children from the local elementary school in Húsavik and also from the elementary school in Hafralækur which is in Aðaldalur (about 22 km away from Húsavik) have been visiting the Environmental School from the beginning of this project. And it has always been the children from the 5th grade that visit the Whale School and the 6th graders that visit the Salmon School project. But hopefully in the near future there will be other elementary schools from other parts of Iceland that will come to work and study in the Environmental School and its sub-schools (Outdoor-education, the whale school project in Iceland, 2007).

The main goal of the Environmental School project in Husavik is to give children enhanced opportunity to learn from the Earth and nature itself, like so many indiegenous groups are still trying to teach their children. We need to find our connection with nature and not just study and learn from books while sitting in a class room; we need to look around us and let our closest surroundings teach us and show us what it is that we have. Awareness about the nature and what it has to offer needs to start early, therefore the Environmental School is for now focusing on younger children. Keep in mind that even though the emphasis in this school project is on studying outside of the class rrom and in connection with nature, by experiencing from nature itself and not from books, that the project is not minimizing the effectuality of academic studies at all. Those two forms of teaching, by being outside and in connection with nature, and by experiencing, and teaching from books need to work in harmony, or be connected with each other. The goal of the sub-schools of the Environmental School is to find balance between those two forms, and the goal is to work in harmony and for the Environmental School to be part of the school environment in Húsavik (Outdoor-education, the whale school project in Iceland, 2007).

The goal of the Whale School is to make children more aware of the complicated world of the ocean, and the life that lives in the big blues sea. The project itself is built up in a way so the children can get in close contact with the whales that visit the bay of Skjálfandi by Húsavik and sense their surroundings. The bay of Skjálfandi is a perfect surroundings for this project, and a excellent place to have the Whale School, because lot of whales stop in the bay over the summertime, and the reason for that is that the bay is full of a small organism called krill and full of fish which the whales eat and that is in fact the only thing the whale does when it is around the Icelandic coast, to eat. In Húsavik there is also an education center associated with the University of Iceland, that education center conducts studies on the whales in the bay, so we are in a close connection with a professor at that center who lend us a hand with the Whale

School. In Húsavik there is also a Whale Museum, which has different kinds of whale skeletons an exhibition, the history of the whaling in Iceland, and information about the whale biology. The whale museum collaborates with the Whale School. The Whale School itself is operates during a period of three days, where the children that visit the school have few projects that they need to d. All of these projects are about the whales that visit the bay of Skjálfandi, but at the same time, the children study the bay itself and its varied fauna (Outdoor-education, the whale school project in Iceland, 2007).

The Whale School project in Husavik has been growing for the last five years, and last summer the project received a scholarship so the school project was able to have a biology student and a student teacher work and develop the school further, both in the biology part of the project and with the work that the student need to do in the Whale School. The Whale School project has also had a very good interaction with a local whale watching company in Husavik, but Húsavik is sometimes called the "whale watching city of Europe" and whale watching is a growing business in Húsavik. One of the local whale watching companies has from the start been in a good cooperation with the Whale School and has indeed been a big part of the project and helped the Whale School much during those five years that it has been working, both to grow and to be able to function (Outdoor-education, the whale school project in Iceland 2007).

The future of the Whale School project in Húsavik is bright, and the school is working hard on becoming better for the students, and making it possible for the Whale School to have students from other countries come and stay for couple of days to visit the whale museum and study in the bay of Skjálfandi, and to be able to learn everything about the bay´s environment and the whales that visit the bay in the summer. The main goal of the Whale School is that the children themselves are in the role of the discoverer, and in the Whale School they learn to work with what nature has to offer them. Outdoor teaching connects children with their nature and with their heritage, their culture and society (Outdoor-education, the whale school project in Iceland, 2007).

4.3 Nomadic schools

Education is inseparable from the life and practices of northern indigenous communities (Johansson, Paci and Hovdenak, 2004:178).

The arrangement of training and state education for children among the people of the North cause special challenges. Many of the people of the North live a nomadic life, but the educational system today is basically build up on settled communities. But there has been a development in education for the nomadic children, for example in Russia where they created new model for schooling to match the traditional nomadic way of life. In Russia the traditional classroom year ends on May 1st and then the traditional cultural education within the community and family begins. After the traditional classroom education ends, the children learn their language by communicating with relatives, the nature teaches them ecology and the children learn cultural transmission by interacting with different people and participating in traditional activities like reindeer herding, trading, hunting and gathering (Johansson, Paci and Hovdenak, 2004:178).

Nomadic schools imitate traditional cultural practices, where education is placed in the perspective of life in the open air. The subjective curricula take into account the unique and special angle of traditional economies and life patterns of the people. This model of education strengthens indigenous languages in the family; it connects parents and children through cultural practice, and it promotes domestic activities (Johansson, Paci and Hovdenak, 2004:178). For nomadic reindeer herders in the Russian North, nomadic schools provide culturally appropriate and innovative forms of schooling. This is done by bringing together knowledge within national curricula and traditional skills, and it makes children in the North better prepared for modern challenges within northern conditions. Nomadic schooling also supports the conservation of traditional nomadic subsistence livelihoods, as children can stay with their parents while they go through their educational process, and because of nomadic schooling the parents are free to move while their children get their education (Lebedeva, 2009:247).

> Nomadic Schools have been created due to a series of critical social problems: disappearance of traditional ways of life, disturbances to the ecological milieu in which indigenous peoples live, and poor social conditions (Lebedeva, 2009:247).

Looking at the nomadic schools in Russia, the first schools were establish in the 1920s and 1930s, some of those first schools were closed and some of them stopped their activities over a long period of time, but many of these nomadic schools have recommenced. In the year 2009 in the Republic of the Sakha (Russia) there where ten nomadic schools operating, nine of those schools are UNESCO´s pilot schools. Each school is different and has its specific character. Because of many different factors, such as the type of activity that the parents practice, like reindeer herding, fishing and hunting, this specific character is needed. There is also a diversity of language and culture, but in the republic there are five different nationalities of northern indigenous people; the Evenk people, the Even people, Chukchi, Yukagir and the Dolgan people. The diversity in population size in the community and children´s age is factors as well (Lebedeva, 2009:248).

The nomadic schools today are different from the previous nomadic schools during the early Soviet era. The reason it is important to have specific schools for the children in the North is that they should generate a knowledge and respect for their territory and culture in the school. The school takes on the role of a center where the people can consolidate and it also becomes a focal point for their culture, developing the spiritual, intellectual, moral and creative possibility for future occupants of national culture. In northern conditions the nomadic school is a mobile form of education, but depending on the specific temperament of the climatic and natural zone and also the type of economic activities, the school form has two predominant types, nomadic and stationary-nomadic. There are seven educational models that have been developed over the time; let´s take a look at those seven models (Lebedeva, 2009:249-250).

The first model in the nomadic school system is **kindergarten**, but this type of school is constructed around the nomadic lifestyle. Its content is adapted to the nomadic lifestyle and therefore creates conditions for the children to study their customs, culture and traditions while being in daily contact with their parents. This nomadic school builds up a stronger bonding within the family, correlation between generations and preservation of traditional lifestyle and activities of small indigenous groups (Lebedeva, 2009:250). The big advantage of nomadic kindergarten school is that children have the opportunity to live in conditions of traditional way of life, which makes it easier for them to adapt to education. The nomadic school system also gives the parents opportunity to visit their children on regular bases, bringing back the role of traditional family education. This form of education also helps the children to master in their native languages (Volokitina, 2011). An example of a nomadic kindergarten school is the Kuonelekeen School which started in 1991. The distance from the

main school Khar`yalakhasky secondary school is 50 Km, the equipment and facilities for the children´s education are stationed in a specially sewn tent and in it is an iron stove, while radio communication is implemented with the inhabited area of Khar`yalakh. The Kindergarten school is operated from January to May, but the secondary basic school runs from October until January. Under the conditions of the arctic tundra the school fulfills successfully the tasks of training and education for the children without them loosing contact with their family, the school also allows the children to participate in traditional activities and preserve the cultural heritage of nomadic Evenks. Besides studying subjects that are obligatory, the children also study subjects that are sectional suitable such as the basics of reindeer herding (Lebedeva, 2009:250-251).

Model two in nomadic education is **Community school.** This type of school has the same function as a regular school for a few children up to 14 years of age, and like with the kindergarten school the community school operates for small territories of small indigenous groups. But the main variance is that the school-teachers and students may all belong to one big family, and that might have some impact on the method of the educational procedures (Lebedeva, 2009:250).

Model tree in nomadic education is a **tutor school**. In this type of schooling the teacher comes to the children in the area where the family is living and herding and the teacher will teach in nomadic conditions and live with a family, like in the extreme northern conditions of Siberia, where certain schools follow the migration routes of the reindeers. This form of education allows the parents to follow the reindeer undisturbed, in many cases the members of the herder community run the schools themselves (Lebedeva, 2009:250).

Taiga school is model four in nomadic education; in this school system the children who are taiga dwellers obtain education from their consultant tutors and from their parents. Model five is **stationary-nomadic school** but in this type of school system the students go for some time to the herding area; while they are with the herding group they study subject cultural themes from their own nation. **Network nomadic school** is model six of the nomadic education. In this type of schooling, the teachers go between several herds, and the teaching is a combination of tuition by correspondence and full time tuition. The seventh model of the nomadic educational system is the **summer nomadic school**. This type of school is designed for pupils who are not fluent in their ancestral language. Observations of educational work in

these schools verify that there is a growing conscious motivation to learn traditional culture and native languages (Lebedeva, 2009:251).

> The nomadic school is a new type of school, which suits the nomadic lifestyle of the reindeer herders and hunters and, besides the teaching of school subjects, directly accustoms children to the culture, customs and traditions of their own people, developing their working skills in the process of shared daily communication with parents (Lebedeva, 2009:253).

As we can see, there are many different types of nomadic school systems, depending on the age of the child, its location and whether the child belongs to a family of hunters or herders. French anthropologist Alexandra Lavrillier set up a nomadic school in south-eastern Siberia and now, five years on, she has without a doubt changed life for many young Evenk people, ensuring that their ancestral culture survives for many generations to come. Thanks to the nomadic schools that have been mainly funded by Lavrillier´s 2006 Rolex Award, some fifty children between the ages of four and thirteen have had the opportunity to stay with their families in the taiga for most of the year, contrary to previous generations who spent months at a time away from their family in boarding schools. Once the children are older than thirteen years then the local authorities insist that the children attend one of the village schools full time so they can complete their education. The community is seeing the benefits of the nomadic school and even though the Evenk people are nomadic people living in widely scattered groups, they play effective role in defending the nomadic school sometimes against the local authorities, and their children´s prosperity at school. Meanwhile the children´s prosperity has strengthened the unity within their community (Rolexawards.com, 2012).

The nomadic school system gives the children from an early age an opportunity to experience the skills and knowledge of their parents first hand and the spiritual culture of their own people, the school shows the young children the working conditions of reindeer and fishing groups who follow migrations. In those groups the most effective form of management comes from the team work in the family, where everyone works in a harmony and together on different tasks. Reindeer herding and breeding is a profession which is transmitted through generations from father to son and from mother to daughter, constantly children are in close contact with the environment, and the environment educates and influences them so they learn to treat the sensitive ecosystems of the North with care (Lebedeva, 2009:254).

In Finland there is an organization called Snowchange, it is a group of Finns that hold their traditional knowledge and practices like handicrafts, fishing, stories, hunting and other culture

sacred. It is also a network of indigenous and local cultures around the world – their partners include the Chukchi, Saami, Inuit, Yukaghir, Inupiaq, and Icelanders, Maori, Australian Aborigines and many other indigenous and local peoples and communities around the world. Since 2005 the Snowchange organization has been working with the Indigenous People Institute in Yakutsk, Sakha Republic, Russia and the Northern Forum Academy to support nomadic education and nomadic schools of the north. The focus has been on a partnership between the Chukchi nomadic community of Nutendli and the partners of the Snowchange project. Save the Children, a civil society organization in Iceland, contributed financial support to the nomadic school project in Nutendli and to the well-being of the children in the school in teamwork with the Snowchange project and the community from 2006 until 2010. This shows us that there are many organizations, small or big all over the world that are willing to lend a hand to preserve indigenous and local cultures around the world (Snowchange.org, 2007).

Access to education is the essence of the nomadic school. People of the Russian North can now move along with the reindeer from pasture to pasture thanks to nomadic schools, without constraints. And the children can live with their parents in their family home and go to school to get their basic education without going away from their home, which means also that their parents can maintain the traditional and vital activity of the reindeer herding and the herds can grow (Lebedeva, 2009:253). Like Dendev Badarch, the director of UNESCO´s office in Moscow noted:

> The nomadic lifestyle has often been seen as a barrier to receiving education, because children move along with their families and cannot spend most of their time at school. Nevertheless, under the conditions of the modern world there is a wealth of possibilities for providing access to education and preserving the cultural historical heritage of indigenous peoples (Lebedeva, 2009:254).

There are of course many other schools and educational forms in the Circumpolar North for example we have the Uummannaq Children´s Home in Greenland which works with disadvantaged children from all over Greenland, these are children that need healing and education because many of them have been badly affected by social changes from the outside world. In the Uummannaq Children´s Home the administrators bring together knowledge of traditional Greenlandic ways of their land, like gathering, hunting and homemaking, and with

this they bring in some Western traditions like music, art, economics and science. They believe that this form of education where they combine traditional and Western viewpoints is essential for the self-sufficient development of Greenland (Andreasen, 2009:240).

There are also Sámi schools in Norway, Finland, Russia and Sweden. There have been some major changes in recent years in the regulations governing Sámi education, and these changes lead to the creation of Sámi schools. In Norway the local government is responsible for the Sámi schools. In the Norwegian public national system the basic thirteen year education curriculum follows guidelines that create a foundation for Sámi schools and are adjusted with the national system. Education that is based on these guidelines is referred to as Sámi School and the children that study under these guidelines regardless of their ethnic heritage are referred to as Sámi pupils (Johansson, Paci and Hovdenak, 2004:178). There are many other schools and educational systems in the Circumpolar North, for example the Sámi University College in Kautokeino and the University of the Arctic, but this thesis will not focus further on those schools.

We should strongly welcome the teachers and scientists that are willing to create nomadic and other novel school systems and we should work hard to keep those school systems working, so that children in the small communities in the Circumpolar North can have the same opportunities for education as children in larger communities. The content of education and how well it fulfills local need is equally important as access to education, and access to education is an essential indicator of human development in the Arctic (Johansson, Paci and Hovdenak, 2004:169).

Conclusion

Indigenous knowledge has been rediscovered as a model for a healthy interaction with, and use of, the environment, and as a rich source to be tapped into in order to gain new perspectives about the relationship between humans and nature (Mazzocchi, 2006:463).

Even though Western systems of knowledge and indigenous systems of knowledge are unalike, the two educational systems seem to work together for most indigenous groups in the Circumpolar North; after working on this thesis it is clear to me that most of the schools´ curriculum interfuse both indigenous systems of knowledge and Western systems of knowledge and that this seems to work for everybody, for students, teachers and the community. It may be difficult for indigenous groups to let those two systems work together and they may need to understand Western science, just like the non-indigenous people need to acknowledge the partnership of multiple knowledge systems and worldviews, but it is necessary to let those two educational forms work in harmony and learn from each other so that education in the Circumpolar North can keep on developing and growing.

Concerning the nomadic schools and nomadic education in the Circumpolar North and outdoor education, these types of educational forms seem to be growing and doing well in most regions of the North. This might be because of the teachers, the scientist and the families who are working hard to defend the nomadic school system, because they are pleased with the education that the children are getting and the children are happy to be able to be close to their family and to be able to stay in their environment and learn the traditional, cultural education along with the western education. Hence the children maintain their cultural heritage like herding, fishing and gathering but they do also stand parallel in Western education with the children in the bigger communities. The conclusion is that children deep in the Siberian tundra are getting the education that they need and they are doing just as well as the children in the big communities, and this they do without going away from their families and the family can keep on doing what they need to do to stay alive, that is herding, fishing and gathering. The nomadic school system works, therefore it is necessary to maintain this school system in the Circumpolar North and to make sure it does not disappear in the future, to do so it is crucial to keep on sponsoring those educational systems, also to keep on developing outdoor education so most children, no matter where they live, can have the opportunity to learn outdoors about their closest environment and their culture, because learning outdoors can truly be enjoyable, fun, challenging and, of course, adventurous.

Education is essential for everyone to develop and grow. It doesn't matter where we live and who we are, it doesn't matter if we live in Reykjavik, Iceland or if we live deep in the Siberian tundra; we all need to get educated so we can grow and extend our mind, skills, knowledge and values. How we get our education differs from one place to another but formal education in most places is based on a Western system of knowledge, meaning that most of us learn art, music, science and economy from books, and from our teachers in our classroom at our local school.

In some parts of the world education takes place outside, the children do not have one specific classroom, and they learn from their environment, from their community and from their parents. This is called indigenous or traditional education and is common in many communities in the Circumpolar North, where the children learn to maintain their cultural heritage, like herding, gathering and fishing, they learn from a group of people whose ancestors have lived in close contact with nature for many generations.

Indigenous education or indigenous knowledge is getting more recognized in the Western world and in Western educational systems. I have always from a young age been rapt about what my closest environment has to offer me and what I could learn from it. It is not just the indigenous people who learn from their environment, we all do. We just need to open up our minds and learn to embrace what our closest environment has to offer us. It is not just the indigenous people that teach their young ones to maintain their heritage, everybody learns from their parents in one way or another. Non-indigenous children may not embrace it as much as many indigenous children do.

That's why when I got the opportunity to develop an outdoor school in my hometown I did not hesitate for one minute to work on that project, so the children in the local primary school in my home town could have the opportunity to learn from their closest environment, and learn from me and others about the ocean that they live by and all the whales that come into the bay in the summertime. When I decided to focus on indigenous knowledge and outdoor education in my thesis I learned that indigenous educational systems and outdoor education is getting more respect in many Western countries and more and more schools all around the world are establishing a curriculum with outdoor education, allowing the children, like in my home town, to step out of the classroom and their closest surroundings. The nature around their school is turned into their class room and one of their teachers is the river, the ocean, the forest or the bay around their town.

It was very instructive to read and study about the different indigenous groups that live in the Circumpolar North while I was collecting information for this thesis. This gave me more ideas on how to develop even further the outdoor school that I have been working on in Iceland. And after studying and reading about the indigenous people of the North I hope that one day I will have the opportunity to go and experience and learn firsthand about the nomadic schools, field studies and outdoor education in the Arctic.

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