

AN ACADEMIZATION OF TRADITIONAL KNOWLEDGE

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EUREKA DIGITAL 8-2008

ISSN 0809-8360 ISBN: 978-82-7389-136-5

MOVING FROM EVERYDAY LIFE TO SCHOOL AS A LEARNING ARENA

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Abstract

The topic of this paper is the school's responsibility in the intersection between traditional and academic knowledge. The focus is on Sámi traditional knowledge, traditional ways of learning and the school as an area for learning. The heading indirectly communicates that daily living and traditional knowledge are connected. That is however too simple as a general statement, especially in a present-day cultural vitalization perspective. Central concepts in this reflection will be tradition related to knowledge, and academization related to a primary school context.

THE TOPIC OF THE PAPER

School plays a central part in minorities' and indigenous people's efforts to vitalize their language and culture. In this article I use my experiences from the Sámi School in Norway in the intersection between traditional and academic knowledge. The Sámi School for children between 6 and 16 years has as a major goal to preserve, strengthen and develop Sámi culture, language and society. Taking the historical situation into consideration, the circumstances for creating a Sámi School, where Sámi language and culture are the fundamental elements, have never been better than after the introduction of the Sámi curriculum in 1997, and this is still the situation in the new curriculum (Kunnskapsløftet 2006). In Sweden the Sámi School (level 1 to 6) has the same goals for knowledge and evaluation as given in the national curriculum for all the Swedish students (Lp-94). I addition, specific goals are to teach the students to speak, read and write in Sámi, and to be familiar with the Sámi culture (Sameskolestyrelsen 2006). In Finland the Sámi students follow the national curriculum with some adaptations made by the local communities. The challenge for the teachers in all the three Nordic countries with Sámi populations is to concretize the curriculum's goals in the relevant context.

The realization of the curriculum is debated. In this article the focus is on the school's dual assignment: imparting traditional knowledge to the next generation, and an academization of the knowledge as a platform for participating in the society of education. The question of academization of traditional knowledge needs a clarification of what the school's role is in the vitalization of Sámi culture. Furthermore, and as a consequence of this, an indirect clarification is needed of the parents' and the communities' roles in the process of passing on traditional knowledge to the next generation. My intention is not to define or discuss the cultural content in the Sami school, but to reflect on the school's general responsibility in the actual contexts.

The background for this article is twofold; on the one hand, my own PhD research in three local communities in Norway where the focus was on reading competence in Sámi, and on the other hand, the general debate about the Sámi School. Collaboration with the school and homes with the intention of strengthening the students' Sámi language competence was part of my research. In this research, questions about how to implement the Sámi curriculum in general were discussed. The parents' concern was their children's opportunities to develop an identity as Sámi. Their hope was that their children would be able to transfer the Sámi culture to the next generation in a natural way. Some of the parents accuse the school of not working hard enough to realize the Sámi School. On the other hand, the teachers felt lonely in their work to vitalize culture and language. They ask for more involvement from the local community and the parents as a part of the community. On this basis, I have asked the question: How can a Sámi School, which is the explicit goal of the curriculum, be realised in our western educational system in communities dominated by the culture of the majority?

My own research, and my presentation in this article of my understanding of the school's assignment, makes me to a part in the debate about the Sámi School. My presentation in this article can therefore be seen as a contribution to the same debate.

A CONTEXTUAL FRAMEWORK

Before a further presentation, I will outline the contextual framework. In the Sámi communities, most of the inhabitants work in public administration and service, but fishing, farming and reindeer husbandry are also industry in many of the communities. Even if there are many Sámi living in the communities, the majorities' language and culture dominate in

most of the Sámi communities. In some of these communities, reindeer husbandry still has an important symbolic value in defining traditional knowledge.

The Nordic Sámi Institute estimates that about 40—50000 Sámi live in Norway, 17—20000 in Sweden, 7000 in Finland and about 2000 in Russia. The Sámi live in small communities over a large area. The estimate is that 30—35000 persons speak the Sámi language well enough to follow a conversation in Sámi. A little over half of the Sámi population can read and write Sámi, but most of them only use Sámi as an oral language (SEG 2000¹). The language competence in Sami is a great challenge from an educational perspective. Some communities have experienced a vitalization process that has reversed the overwhelming dominance of the majority's language and turned the development in a new direction. The most concrete results of the vitalization process are that parents have started to speak Sámi to their children again.

CLARIFICATION OF CENTRAL CONCEPTS

There are a few central concepts that need clarification. They are the concept of *tradition* in relation to *knowledge*, and the concept of *academization* related to a primary school context.

Kuokkanen (2007) discusses the intersection between traditional knowledge and academization in education. She argues for an indigenous' episteme, understood as an expanded concept of culture as a gift that represents an enrichment of academic knowledge. She defines traditional knowledge as a basic individual and collective experience. The encounter between traditional knowledge and academia represents a crash because academia does not manage to transform the academic knowledge into a different episteme (op.cit.). If Kuokkanen is right, the problem in the work for a Sámi School is not in the compulsory school, but in teacher education.

Traditional knowledge in this article is understood as a social practice, a concept or an institution that is passed on to new generations in a society or a group. Tradition is "the glue" that connects the old and the new and in this way represents continuity. Traditional knowledge was not defined as a concept until we witnessed the rapid changes of society. Easton (2004) describes three features of traditional knowledge; it is a heritage that includes specific knowledge, it is still in use in learning and teaching, and it verbalizes people's

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¹ Sámi Ealáhus- ja Guorahallanguovddás/Samisk Nærings- og utredningssenter

knowledge. Burgess (1999) describes traditional knowledge as an accumulative practical useroriented knowledge that is passed on to the next generation through oral tradition and firsthand observations. In the Sámi area traditional knowledge in fishing, farming, and reindeerherding, and in applied tools and arts was a common knowledge, but has developed to be an expert knowledge for only a few (Sara 2004).

Traditional knowledge in all cultures is unique but at the same time manifold and diverse. Ramphele stresses that traditional knowledge is the necessary foundation for decisions about practises, institutions, relations and rituals (Ramphele 2004). Some see traditional knowledge as non-verbal knowledge, which represents a challenge to an educational system that has verbalized knowledge as its main tool (op. cit.). Another challenge to a school embedded in western thinking is that traditional knowledge cannot be separated from a cosmology; an understanding of life that represents holistic knowledge which includes both a mundane and a spiritual world (Gorjestani 2004).

The definitions of traditional knowledge mentioned in the paragraphs above are mainly connected to the primary industries, nature and social structure. This knowledge is practical and user-oriented and is learned through observation, participation and through listening to stories from the users of the knowledge. Traditional knowledge was and still is acquired through participation in relevant practices. This can be described as a progression along a road of participation and growing identity (Greeno 1997). How to learn and what to learn are strongly connected.

Academization is the other concept that needs clarification. Academization represents a transition from spontaneously acquired concrete knowledge, learned through interaction and stored in everyday concepts; a transformation to abstract and logically organized knowledge (Vygotsky 2001). This process of learning takes place on two levels; first through interaction with others, and then the experiences are established through psychological processes (op.cit.). Vygotsky thus gives the cognitive development a social foundation, and as a consequence, language has a crucial function in learning.

The development from the concrete and factual to the abstract and logical represents a scientification of the experienced knowledge. Social interaction is the starting point and basis for which concepts the child will meet and learn in the culture they live. But the development

of concepts can also go the opposite way. During his or her education, the child learns a concept, for example "exploitation". The process of developing such concepts therefore represents an interaction between maturation and learning. Vygotsky (2001) emphasizes the interaction in the development of the two types of concepts. The development from spontaneous to scientific concepts must therefore not be understood as an exclusively linear process. The development of spontaneous and scientific concepts is a dialectic process in the child's cognitive development.

To sum up I, claim that in education two different types of knowledge are involved. One type is informal, traditional, practical and sometimes non-verbal. The other type is formal, abstract and represents a highly generalized type of knowledge. In an education process the aim is to develop experienced every-day concepts into recontextual knowledge. This process moves through generalization and abstraction, and that means a theoretization of the experienced every-day knowledge.

THE SÁMI SCHOOL – A CHALLENGE

There has been a debate about the content of the Sámi School. Hirvonen and Keskitalo have been central contributors to the debate, and they describe the Sámi curriculum as an incomplete symphony where the last movement – the practical carrying out – is lacking (Hirvonen and Keskitalo 2004). Hirvonen (2004) has in her research asked the teachers about their understanding of a Sámi school. Their priority was the Sámi language as the most important criterion, but also multi-lingual and multi-cultural aspects were seen as important. The teachers also included conditions for making a living for oneself in the local community through interdisciplinary teaching, and that it is a challenge for the Sámi School to strengthen a holistic perspective in their training of the students. The teachers expressed agreement on the principles of a Sámi School, as well as difficulties to follow them in practice. The teachers in Hirvonen's research talk about their own childhood, when they learned through participation, whereas they now teach in a manner that can be described as a transmission of knowledge. The Sámi curriculum does not guide the teacher in how to teach in another way.

Professor Anton Hoëm has followed and participated in the debate about the Sámi School during the last 40 years, and he argues that the school's most important assignment is general education. This represents a knowledge that is not bound to the concrete contexts where it was

experienced and which can therefore be used in new contexts (Hoëm 1993). If the school is to succeed, it needs a foothold in the local community, and simultaneously to assist the student in giving rise to local knowledge through generalization and abstraction. In this way, the school may carry out its general education as a framework for understanding in the interaction with other cultures. As changes in society accelerate, the importance of a locally based school increases. Hoëm (1985) mentions examples which illustrate one of the challenges the schools in my project faced in their work with the realization of the Sámi curriculum. For the students' grandparents and the generations before that, the school was the only place where the Sámi language was not spoken. The situation in many of the Sámi communities now is that the school is nearly the only place where the students speak Sámi. However, transmission of language is not the only responsibility for the school. The same argument is relevant for other cultural elements too. Nutti (2007) has studied mathematical thinking from an indigenous perspective in Kiruna, Gällivare and Jokkmokk. Her intention is to use the reindeer herders' and the Sámi handicrafters' knowledge about cultural thinking in mathematics to analyze the challenge between the everyday context and the academic thinking in school. The connection between traditional knowledge, personal experiences and school knowledge is not simple in any cultural context. An important question in this context is how familiar the Sámi children are in general with the herders' traditional ways of counting, measuring and of location. In a vitalization perspective the example from Hoëm and Nutti illustrates that the responsibility for communicating language and culture has largely been transferred from the private and informal area to the school as an official and formal arena for learning.

Modernity has had a strong breakthrough, and a result of this is an urbanized form of living even in small local communities where primary industry and subsistence living have represented traditional values, knowledge and strategies for teaching and learning. There have been questions why school ought to be responsible for taking care of and give new generations' cultural expressions that are in decline. The answer often given is that every people and every individual have the right to a history, a present and a future. For some Sámi local communities the cultural timeline was nearly cut off before the vitalization process started. The school has received a central position in linguistic and cultural continuation. Easton (2004) presents a three-step model for maintaining local tradition by making traditional knowledge a vehicle for formal education. The first step is local knowledge as a subject in the curriculum. This step has been reached since the subject of local knowledge is included in the curriculum which is the basis for teaching Sámi students. The next step is to

create an informal educational system outside school, understood as a network of competent practitioners of traditional knowledge, who can give courses to develop their own and new practitioners' competence. The last step in his model is the students' use of this network as a basis for situated learning of traditional knowledge. In this way the informal learning will be a vehicle in the school's teaching of Sámi culture.

Easton's' model clarifies the local community's part in passing on the traditional knowledge to the students. However, it is fundamental to the model that the local community's traditional knowledge is still in use. The school's dilemma in many Sámi communities is that the conditions for passing on the language and culture through daily use are not really present. What the school teaches about traditional knowledge is often from the life of the students' grandparents or from environments they do not belong to, and the students do not necessarily identify this as relevant knowledge for their lives. In school the production and the use of knowledge is separated, and this is a new situation compared to the traditional way of learning and producing traditional knowledge (Bergstrøm 2001). The school tries to meet this situation through outdoor projects, permission to work in the primary industry as an informal "apprentice", and in general to provide project-based teaching when the subject is traditional knowledge. One of the schools' many challenges is to connect the different initiatives for passing on traditional knowledge and the school's general educational assignment.

TRADITIONAL KNOWLEDGE: A DISCUSSION OF SOME EXAMPLES

In the curriculum, the school's assignment is to supplement, systemize and explain experiences from the family, local environment and society. Sámi identity should be strengthened by knowledge about nature, culture, tradition, primary industry and ways of living (Curriculum L97Sámi:60, LK06: Kompetansemål i tradisjonskunnskap). In addition, the school has to provide general education and promote understanding of other cultures.

Passing on traditional knowledge through formal education represents some challenges in the transition from practical knowledge outside school to the academization of knowledge inside school, and also from oral expression to written language. Written knowledge implies a detachment from the original context, with the intention of using the knowledge in new contexts.

The Sámi School's assignment in passing on traditional knowledge and the school's assignment in academization represent a possible tension area between two forms of knowledge and therefore need to be reflected upon. I will now provide four examples to suggest ways of approaching this assignment.

First example: Students in reindeer husbandry

My first example is the students' opportunity to get a leave to work in reindeer husbandry as a part of the school's focus on traditional knowledge connected to nature, environment and how to survive in nature. The important question here is how the school can contribute to turning experience-based knowledge learned outside school into academic knowledge inside school. Nergård (2006) gives an example connected to the reindeer owner's marking of ownership on the reindeer calves' ears. The example can illustrate my point about the school's part in mediating practical knowledge in a school context. The example of the marking of calves' ears illustrates how the school and the reindeer community teach and express knowledge in different ways. Marking of calves is an example of another type of concept which exists in the working process. When the forms of the marks and the marks' function are explained in a school context, this represents a recontextualization of the concept "calf-marking". A recontextualization implies that the concept will be made abstract. To learn how to mark calves implies a situated learning perspective where the child or youth moves from the position of an apprentice in peripheral participation to a full participator.

The school's assignment is to contribute to a development of "scientific" concepts through verbalizing and changing the knowledge into abstract concepts. The first step is to move from the concrete experience to a semi-concrete concept. That could mean to take pictures of the calf-marks or the marking process, or to draw the marks and the marking process. In this process the student is challenged to choose which perspective is most useful. The student could sit on the fence when taking pictures of the "master's" use of the knife when the marks are cut in the reindeer's ear, move to another position to take serial pictures of the marking process, or concentrate the pictures on the differences between the calf-marks. The next step is a change from the semi-concrete to the semi-abstract where the students draw icons or words as explanations to the pictures. The last step towards the development of abstract concepts is definitions and categorizations of important concepts which store the verbalized knowledge about calf-marking. The tools in working with calf-marking and with scientific concepts are different. In the concrete work, a lasso and knife are necessary tools, in the semi-

concrete work a camera or a pen and paper, and on the abstract level only words and the connection between words is a relevant tool.

Second example: Handicraft – movement from outside to inside school

My second example is art and handicraft as a subject in school. This represents practical knowledge that was traditionally practiced outside of the school's framework. From Easton's (2004) point of view in his model, the road from practical to academic knowledge described in an earlier paragraph could also be used in this context. It should be possible for the students to participate in a network of practitioners as "apprentices" and bring the practical knowledge back to school to continue processing the knowledge. Such a network of practitioners is not available for the students in most of the local Sámi communities. The school's teaching of art and handicraft is therefore moved from the contexts where the knowledge was traditionally used to the school context. One of the competence aims in grade seven is weaving traditional bands with different functions. The students observe the teacher's practical demonstration, and the ideal is that the students take the "apprentice" position in the work with her/his own band, and the teacher represents the "expert". The students participate in a concrete practical activity in the regime of the school. The school's approach is different from that of the home. In homes where handicraft still is part of daily life, the beginners have more time to observe their grandmother, mother, aunts and others weaving, and the beginner can listen to the discussion of the "experts" about materials, designs, colors and versions. In school, all except the teacher are beginners at the same time. The curriculum's goal for art and handicraft is for the students to acquire and master basic principles of Sámi handicraft through practical work. The students in grade seven remain beginners in band weaving because the time perspective is too short to develop expert knowledge. To learn principles requires an abstract overview with basis in basic concept such as form, color, size, position and texture. The local community's use of woven bands will be important for how relevant the students find the learning process. Both examples illustrate the importance of the interaction between the home, the local community and the school, and that different institutions have different roles in conveying traditional knowledge to the next generation.

Third example: An outdoor school project for conveying traditional knowledge

The third example is from Sara (2004) and focuses on the school's outdoor projects as arenas for conveying traditional knowledge. Sara mentions different household functions and outdoor activities as projects for providing the students with experiences from traditional

Sámi life. He mentions ... slaughtering reindeer, making cheese, grouse snares, elk hunting, fishing with a net under the ice, fishing with a seine and net, driftnet fishing, picking berries, preparing a kind of sedge, collecting bark and woodcutting (Sara 2004:124, my translation). He elaborates an example where the school had an outdoor project. The subject was traditional knowledge and the concretization was slaughtering a reindeer. The goal for the outdoor day seems not to have been precisely defined in contact with the traditional industry. The result was passive students who mainly observed what happened. Sara's comments to the example were that the school has neither resources, nor learning materials or opportunities, for various reasons, to provide situated learning. Because of this, the school needs a different perspective, and Sara discusses how this situation could be used as a link between traditional teaching in school and traditional knowledge outside school. His perspective raises questions about the school's role in imparting traditional knowledge.

One of the school's general problems is that teaching has abstract knowledge as a starting point. The outdoor project in Sara's example provided an opportunity to use the slaughtering of reindeer as a starting point for teaching about the inside organs of mammals, the animal's condition and the use of the different parts of the reindeer. The result could be written in a student report with pictures and texts; a power point presentation for other students or parents is also a possibility. IT technology and digital media are important areas in the primary and secondary school. The students on this level are not unfamiliar with taking pictures with the mobile phone and transmitting the pictures to the computer. In addition, the project opens for traditional knowledge connected to cooking and modern eating practice by young people.

Another important aspect of the outdoor day is traditional knowledge connected to survival in nature; making a fire as a protection against cold weather, pitching a tent to get shelter and making food over open fire to feed oneself. These are examples of traditional competence which is important for survival and is still valued. Some of the parents questioned the teachers' competence in transferring this type of knowledge to the students (Sara 2004). At the same time, the parents' comment that their own way of living has changed, and that it is not easy to convey this type of knowledge to the next generation to the extent that they wish.

Last example: Stories as mediation of traditional knowledge

The oral tradition is central in the Sámi culture. Stories have a central position, and they are used with different intentions. Some examples: Stories are used as an indirect correction in the

upbringing of children (Balto 1997). Other stories mediate faith, tradition and knowledge about birth and death. Conversations about dreams are a part of the oral tradition where experiences are communicated and interpreted. The dream as a phenomenon belongs to the non-physical part of life, and is a non-material part of the culture. Dreams can be interpreted as warnings of death or as messages from dead persons. Through a dream the dead person can give a warning, a message, or remind the living of important values in Sámi society (Myrvoll 2005). Nergård (2006) has an example of a story which gives information about potential danger connected to moving to a specific area or about an urgent situation. The background for the story could be a serious accident; however, the theme for the story is not the accident, but the potential danger that demands alertness from everybody who moves into this area. The story represents a mediation of experienced knowledge to the next generation. It helps the storyteller as well as the listener to keep in mind important aspects of moving into the area in question. The story thus represents a common understanding and a collective memory.

This type of stories is important in the school's work for realizing the curriculum's goal in natural science as well as the tradition of storytelling in Sámi. The goal is both an overall understanding that includes a worldly and a spiritual cosmology, and the practical competence of how to survive in nature. Through the stories contextual knowledge and attitudes are mediated, and these are important elements when a situation or occurrence has to be taken into consideration. The stories have a different function from the schoolbooks' mediation of knowledge about nature. The most fruitful perspective is to understand the different forms of knowledge as complementary to each other.

Stories as a form of mediating traditional knowledge in the spiritual dimension are common for all the different Sámi communities. A good pedagogical principle is to use students' experiences as a starting point when new knowledge is to be presented. One of the most important teacher responsibilities in school is to guide the students into the written world. This represents challenges in language and genre. It is important that the school has knowledge about the different types of stories the students have experienced, and lets this be a starting point for introducing different genres. One of the competence aims in the curriculum for grade seven is a comparison between Sámi fairy tales and fairy tales from other indigenous peoples. To do this, the student has to abstract and reflect on the fairy tale's form, content and genre features. The students do not learn this type of knowledge only through

listening to or telling fairy tales. They need the school's help to move in a direction towards a more abstract form of knowledge.

SUM-UP AND CONCLUSION

The starting point for this article was a question about how the Sámi School could be realized in a western school system. The formulation *from daily life to school as a learning arena – an academization of traditional knowledge* – insinuates a direct connection between daily living and traditional knowledge. To what extent this connection exists, and which parts of traditional knowledge the students would recognize in school, will obviously vary. It is a balance to adapt the Sami curriculum to local culture on the one hand and on the other hand to work for the vitalization of Sámi language and culture. To what extent the school will succeed depends on the relationship and communication between school, home and local community.

One of the major goals for the Sámi School is to preserve and develop language and culture. The school is a specialized institution for imparting traditional knowledge, and it happens under different conditions than the teaching of traditional knowledge did originally. A consequence is that the school's teaching of traditional knowledge is most often separated from the contexts where traditional knowledge is developed and used, and the result could be an alienation of the knowledge. The school's challenge in this area is both to create links between teaching and practical use of the knowledge outside school, and to initiate collaboration with the students' homes. If this does not happen, the school's teaching of traditional knowledge could be of restricted value.

The school's challenge in imparting traditional knowledge and the school's educational assignment imply an academization of the knowledge. The examples used in this paper to illustrate this connection represent no revolutionary new knowledge for the school, but based on my research and the general debate, it seems that there is a need for reflection on the situation between both assignments. It seems to be necessary that the homes, the local community and the school communicate to clarify what the school's role is in imparting traditional knowledge; that the students obtain knowledge about their roots, competence in using traditional knowledge, or competence in converting traditional knowledge and skills to new knowledge useful in a modern society. In other words, a clarification is needed of the meaning in the curriculum's statements about insight in, experience with, and knowledge

about versus practical skills on the one hand, and scientific knowledge on the other hand. The school can end up not providing the students with serious knowledge, if the home and the local community are not active participants in vitalization and redefining Sami traditional knowledge, and if the school does not dare to take its academization assignment seriously.

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