

Friluftsliv/Outdoor Recreation: Key to Obtaining Practical Knowledge and Tested Experience

A description of the possible outcomes in and from outdoor activities, but also an attempt to develop a discussion about knowledge in general and practical knowledge in particular.

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ABSTRACT

This paper focuses on knowledge in general, as well as different types of knowledge. My aim is to discuss, argue, and underline the importance of practical experiences and knowledge gained through action in today's society. The context is based on outdoor education and recreation, with stress on the school system and how PE-teachers, and other teachers, have responsibility to emphasize the importance of this topic; it is also relevant for those who work outdoors with other groups, both children and adults. The text includes discussions on the gaining of knowledge, not only in relation to the outdoors. One can say that this text is related to epistemology in a way, but from a different perspective. It tries to broaden the topic of knowledge in general and to emphasize the importance the different aspects knowledge can have. The text takes its point of departure from a chapter I wrote in a book about practical knowledge (Gustavsson, 2004). This book was in progress over several years and included contributions from a diverse group of authors. In developing the themes of the book, we held many seminars and study sessions which inspired my chapter as well as my text in the present work. My intention is to describe and reason in great detail what my course of action is, and the decisions I have to make, when instructing outdoor courses. The following text underlines personal experiences to highlight the importance of outdoor recreation and education, and to stress how neglected it is in today's educational system. Also, attention is directed towards student creativity within the dynamics of outdoor activities, which is something that Agnes Nobel (2001) thinks would strengthen and inspire people's willingness to learn. This ultimately makes education more relatable and successful. If the objective of learning is to create a more open and encouraging environment for the students, then this may allow the students to feel more in control of the direction their learning is taking them.

INTRODUCTION

For some time now we have learned new skills as well as developed and refined our know-how and knowledge by learning from other people. This has taken place through training and practice under different circumstances, mostly under supervision or via instructions from someone more experienced or skilled. In today's society (at least in the Western world) we are cultured to believe that we can acquire knowledge through reading. This indicates that the public puts information and facts on the same level as knowledge. We can see this, in the following, a proposition from the government: *Knowledge is the most important building block of the modern society. We are living in a knowledge society.*

This is agreed upon by the majority of people, but what kind of knowledge does this pertain to? Perhaps it is the ability to attain vast amounts of information within specific areas via the World Wide Web? Is this synonymous with knowledge? We can ask ourselves what makes a person "knowledgeable"? Is it a person who creates knowledge? Are not humans vitally more than collectors of information? Are we not social and sensual creatures with feelings, where knowledge should be integrated into our whole way of living?

Bernt Gustavsson (2000) argues that knowing (in terms of creating knowledge) is something in action, an activity that requires involvement and incorporation within ourselves. Knowledge is a personal and social phenomenon to be found in a human, social, and cultural context. Sven-Eric Liedman (2001, p.6) expresses it in this way:

Knowledge is not, as you today can get an impression of, something facile which humans from one day to another take in and next day throw out. Knowledge is incorporated with human's way of living and understanding the world.

In accordance with this starting point, knowledge is something we have to acquire ourselves.

THE BACKGROUND FOR THE STORY

I have worked for many years with courses and education within the teachers' training programme, but also within other areas where nature, outdoor education, and recreation play an important role. My point of departure there is that education in the outdoors involves the person as a whole, with all senses present. I do not want to describe this in terms of theory and practice because that is not reality. Therefore, my introduction to every class is often some sort of group activity. From that we can relate to different theoretical perspectives or views. My contextual aim is to describe, in all its complexity, an introduction to the field of outdoor education and recreation for the students. The concept of outdoor education and recreation is defined here as both a teaching method to use in different contexts, and as an aim or an intrinsic value (examples will appear later in the text). My ambition is also to present a so called "close to nature" perspective, which means an effort to develop a relation to the outdoors in as uncomplicated a way as possible, with few resources. The students are going to be teachers in their class; therefore it is relevant to write something here related to the curriculum of the Swedish school system. Outdoor education and recreation can help bridge the classic gap between theory and practice and characterize learning as an engaging process of knowledge attainment.

This ancient division between theoretical and practical knowledge is, according to Liedman (2001), obvious for most of us, at least before we reflect on what it means. We talk about practically or theoretically talented children, as well as practical and theoretical professions. Liedman argues that this is, in fact, an extremely problematic classification: *It's rather a mirror of an old and still existing division of class from the old class society, than meanings of different kinds of knowledge* (Liedman, 2001, p 83).

Neither in nature nor in the world outside of school can we find this dichotomy of knowledge that is created traditionally within the walls of the school. In the curriculum for the Swedish compulsory school system from 1994 (p. 8) we can read that:

In school, intellectual as well as practical, sensual and aesthetic aspects should be recognized. The pupils should meet and get experiences from different kinds of knowledge. The pupils should have the possibility to try and develop different expressions of feelings and moods. Drama, rhythmic, dance, making music and creation of pictures, texts and forms ought to be parts of the schoolwork. A harmonious course of education contains manual as well as intellectual work. Creation is an ability that the pupils should acquire.

In the revised curriculum for physical education and health it is proclaimed that physical activities and outdoor recreation play an important part for health and wellbeing. The curriculum also describes the importance of regular physical activity and outdoor life. Further on we can read that:

The subject makes connections with the strong cultural traditions of being outdoors in Sweden. Via activities in the open air the pupils gain experiences and knowledge which can stimulate continuing interest for issues concerning outdoor recreation, nature and environment.

(Curriculum for the Swedish compulsory school, SKOLFS 2000:135)

Sandell (1999) argues that being close to nature can create a will that changes our behaviour, and this can ultimately benefit nature. He means that there are strong reasons to believe that contact with nature is correlated to engagement in environmental acts; however, it is not a simple causal link, and many factors play a role. Contact with nature is also important for one's engagement.

In the curriculum for the Swedish compulsory schools, Lpo-94, it is written that: *The subject should contribute to arousing engagement for and creating awareness about nature and environmental questions.*

Oscar Öquist (1995) points to the risk of letting the school contribute to the pupils' grasping of information, but without an understanding of the world they are living in. This elevates the importance of practical subjects in school, where attention can be directed towards the students' ability to understand and respond to ambiguous and complex situations, as in real life. One important task for the education system should be to test new ideas; to broaden our teaching methods in relation to different contexts. One example is to compare students' impressions against others understandings of the same reality. There are many concepts that appear in the area of outdoor education and recreation. One common concept is "outdoors pedagogy", which simply focuses on learning in and through the outdoors. Dahlgren & Szczepanski (1997) describe "outdoors pedagogy" as a complement to the over-simplified bookish learning environment. They emphasize the importance of children's natural curiosity. Molander (1996, p. 271) emphasizes knowledge in action, which can be described as attention learning and learning to learn:

Reality is not longer an 'object' which we can divide. Reality could instead been seen as a landscape of which we are a part and which we meet in different ways depending on how we move ahead.

The purpose for the participants is to achieve competence in the area of outdoor education and recreation. This is primarily self-competence, but also the ability to utilize this knowledge in different contexts, such as the schoolteachers'. In other words, this means the students must learn themselves and then learn how to use this knowledge in other circumstances, mostly from a

leadership position. When preparing my class before the overnight trip in the bush, I lecture to them about the field of outdoor education and recreation and connect it to that what the curriculum states. In addition to this, the students also receive information about equipment and what to bring for the overnight stay. The activities I will describe further on in the text are activities I feel everyone needs to experience by oneself or in groups. It is not enough to read about them, and it is not enough to read about others' experiences. I do not mean to state that literature is unimportant, rather that literature is insufficient, though it can bring forward experiences of others of the same activities, which is something we can relate to, reflect on, and discuss with others. The point is not either or, it is a combination of both reading and experience, acting to understand (Svenning, 1998). This means that theory and practice belong together and that action has to be appreciated. Carlson (1995) expresses that physical engagement also enhances mental activity; from hands-on, to minds-on. Molander (1996) indicates that though words and mathematical formulas can be useful, knowledge is more deeply rooted in living traditions. Arendt (1978) has pointed out the danger of dividing people into those who think and those who act. Bergendal (1990) argues that this can lead to a division in real knowledge, i.e. knowledge that can be formulated in words, and that which we do not call knowledge. This could lead to a situation where experts are given the authority to think. Instead, Arendt (1978) maintains that every time we get into trouble we have to think for ourselves and make decisions. My descriptions and reflections are to promote self-experience, or a way to encourage a "well-tried" experience.

Another relevant concept here that is related to the well-tried experience is Aristotle's concept of "phronesis". Gustavsson (2000) defines this as practical wisdom that is not only a phenomenon connected to the Western world, but a universal phenomenon. Phronesis can be acquired in different ways and does not only concern those who deal with ethics and politics. It seems like this practical wisdom could be acquired through long-lasting practical experience. Gustavsson gives examples from South Africa, where you can find in every village, an old woman or man from

whom people can receive good advices (see later examples). Nussbaum (in Gustavsson, 2000) states that, from an Aristotelian perspective, theoretical activities can hinder our own perceptions and opinions, which can be very dangerous to the learning process. According to Kroksmark (2003), Aristotle meant that useful knowledge leads to wisdom. This ideal of education has been termed liberal education, and when it reached Rome, it was named “Artes liberalis”. From this background it seems likely that phronesis was an important aspect of knowledge. We have to ask the question: In what way can we acquire phronesis? If possible, how can phronesis be involved in education?

In this text I have chosen to combine the description of the activity with my own reflections, thoughts, interpretations and decisions. To make the outline of events easier to follow, I have included time headings. The principles I have described earlier in the text are not the only way, as I feel there is never just one way to reach a goal. But in this case, I am centred on knowledge, insights, and perspectives. My intention is not to work against traditional classroom education, but rather to introduce an alternative method, which allows more variety. While reading this text I hope that everyone considers how my objectives may be reached in other ways, and if so, how? Keep in mind that the group being addressed are first year college students; therefore, a major purpose is to get the group acquainted with each other and to develop new relationships under different circumstances. This promotes and accelerates group processes.

THE STORY “24 HOURS IN THE BUSH” (combined with reflections and interpretations)

(All times are a rough estimate)

13.00: After a short meeting, the first thing we do is to go and get the various equipment needed: tents (similar to the Saami’s traditional tent), axes, saws, pans, tarpaulins, reflector ovens, pieces of string, ropes, kerosene lamps, cans with water, etc. Of course, the students know that they are going

to spend a day and night in the bush, but at this moment they wonder a lot about what is going to happen out there and how they will manage to handle any practical problems they will incur. It is a big difference from the comfortable every-day-life they are used to, not to mention the overnight stay.

13.20: We walk towards our “base camp”. It takes about half an hour and we take some short stops to see if we can find some useful things to bring with us (herbs, wood and even a snake has occurred)

13.40: When we have arrived at the “base camp” I gather the students for a meeting where I tell them about the conditions for the coming 23 hours and what is occurring next. This information is of no consequence in the earlier phases, but now when they have arrived, they have some sort of idea of what is expected. There is a special purpose for why this particular spot has been chosen for carrying out the activities planned, and the camping. The place is very accessible, as local authorities have deemed it an organized camping area, making it easy and convenient for people desiring recreation and leisure. Every year they build a charcoal stack here, where people can come, visit, and learn about former cultural traditions. People feel the atmosphere from previous times and might learn something from the visit.

The information given to the students is plentiful, as it is important for the students to be involved in the planning. It is also important for the students to have the opportunity to rest and relax between the activities if needed, meaning that a “school” atmosphere is not present. My policy is that certain activities are a group responsibility, such as making food, shelter for the night and for rain, whilst other activities are more dependent on individual interest. We will never have exactly the same interests; we want to try different things and we develop in different ways. As a group we have to decide when we want to have the food ready to eat, and this will affect our strategies for the

other activities. We need to chop wood before we make a fire and before we can start cooking. When the students understand the meaning of this information they realize that there is plenty of work to do. Here it is also relevant to point out the historical perspectives when humans had to manage everything by themselves. Sooner or later everyone realizes that the lack of running water and electric stoves requires us to think and plan differently. My policy or philosophy (described above), is important to reflect upon. Interests vary and many of the activities are new for most of the students. Therefore, to make the most of time, it is advantageous to allow the students to choose what is most interesting for them in order to stay motivated, which enhances the learning process. At the same time I make my own role clear to the students. I see myself as a resource, a supervisor, and depending on the situation, I become more of an instructor. (The best is if they ask questions; I try to be open and available most of the time). I also will demonstrate different techniques and materials that can be used with different purposes. From these demonstrations it is up to the students if they want to practice and learn more (examples are described later). Finally, I emphasize that this educational activity, as a whole, is not about producing as much as possible. It is important to also enjoy the simpler things of being in the outdoors; taking the time to relax, maybe go for a walk with or without company. My own experiences from arranging different types of syllabi for students and for teachers, is that they are accustomed to staying “on task” at all times, which can lead to more stress. This addresses the question of when can we find time to “meet nature”, a meeting with yourself and others, as well as with vegetation, animals and different weather conditions? If we arrange too many activities, the results and effects could be contrary, even if our intentions are good. This could also be a basis for reflections on the concept of efficiency.

Owe Wikström (2001) states that it is destructive to mix efficiency and speediness. He asks what happens to humans when everything goes faster. That does not really favour a thoughtful or shy person and there are many diminishing words for this: long-winded, time-consuming, slow, etc.

Words for speed are, on the other hand, almost always elevated: *Efficient, fast, simultaneous capacity, etc. At the same time impatience can lead to ill-judged decisions* (Wikström, 2001, s. 31-32). Furthermore he argues that there is a need for a balance between sudden suggestions of ideas and more long-term thoughts concerning ideas (more reflections on this later in the text).

To describe a day and a night in the bush is, of course, dependent on the reader's experiences of outdoor recreation. To read about these skills is not the same as putting them into practice. The atmosphere, such as the smell of flowers or smoke, contact with and taste of different materials, meetings with other people, temperature, etc., affect us in a myriad ways. This is also an example of the hindrance of written words when trying to experience practical reality. I hope though, that my descriptions will give you an idea of what this is all about.

At this point we are in a forest, surrounded by a blanket of spruce, fir trees, and blueberry twigs.

14.10: The group now understands the situation and what is expected of them, and so starts the organizing and the work (getting wood for building-elements and for the campfires; cutting and chopping wood). Some students try to find suitable places for tents and for organizing the equipment. During this messy period I just try to be present if supervision is necessary or needed. For example, the axe is an important tool to use, so I am sure to bring up the security aspects to avoid injury and to introduce useful chopping techniques (depending on the size, quality, and kind of wood). The discussion concerning risks is always important and even if we cannot avoid all the risks, we can try to work as safely as possible. There will always be some danger when using an axe or a knife, not to mention a fire, so it is stressed that axe and knife be used as tools and not as weapons. Our policy in this respect, as teachers and leaders, will mean a great deal.

The first cooking event is approaching. The first items to be baked, once there is a fire, are the muffins.

The plan looks like this: The students work in small groups and make the batter for the muffins, some via simple boxed recipes, and some by “scratch” recipes: mixing egg, flour, sugar, butter, and baking powder. It is interesting to discuss the advantages and disadvantages depending on which method they use. We can reflect on whether it is a good idea to learn what the mixture consists of, or if the speed and the simplicity with boxed recipe is important. When you make the mixture yourself you will probably learn more about baking, and you can see what happens if you do not add baking powder, and you can compare this fermentation process to the process when using yeast. At the same time I demonstrate how to use the reflector ovens. These look like square bowls of light metal, the more reflecting power the better. You put the mixture inside the bowl and then you place the bowl with the open side towards the fire. Whatever you can cook or bake in an electric oven you can bake and cook in the reflector oven. The difference is that the heat comes from the outside, therefore there is no door or window. How you build up the fire will determine how efficiently the food will cook. From this technique, we can discuss and compare all other cooking techniques from historical perspectives in terms of similarities, differences, materials, and various conditions and cultures. How can you make an oven from stones, and what differs in the physics compared to a reflector oven? The knowledge and the understanding of this becomes interesting. If you realize and understand how it works, you will manage similar situations better even if the conditions are not the same.

15.30: After we have tasted the muffins, it is time to discuss when we want dinner to be served. At the same time the students realize the fact that it takes a lot of time to prepare and make food under these circumstances. Cooking becomes central and takes a lot of time and effort, mostly because the fire and everything connected to it takes a great deal of work and time. From this, it becomes natural to discuss questions about our way of living, our lifestyle, i.e. the fast pace in today’s

society and consequences of that. The dinner in question is meant to be a South-East Asia inspired wok (casserole) with noodles. The students have arranged this and the ingredients would vary from time to time depending on what the students like or bring with them. Here we always have to consider any allergies of the students, as it seems like allergic problems and intolerances are increasing in the Western world though they seem to be unknown in other cultures.

After discussing when dinner preparation will commence, the students disperse and take on different activities. Some of them have gathered around the fire and are doing different sorts of handicraft, mostly carving. One student is carving a “talking stick” which will be used as an closing activity the next day; this is also an evaluation (a method which I will return to in the end). There are students who are cutting/chopping wood, some are arranging their beds for the night, and some have realized that they have to make a hanging device for the pots over the fire. There are many challenges that the students face with each activity they choose, and each student has a creative solution. I think that it is relevant to stress, once again, that my role is to be a helping hand or someone that the students can talk to, but if I realize that there is a need, I can instruct, organize, or have a lecture. Feel free to ask yourself the question: why do I change my role? My answer would be, that in terms of leadership, we could call this a situation-based leadership, where the leader has to consider many factors such as the context, purpose, as well as the nature of the group and the individuals in it, etc. When working outdoors under these circumstances you are exposed to risks. At the same time the risks are an exciting and developmental part of the activities, but there is always a matter of making appropriate decisions depending on the skills of the group. Using a knife is a good example. If we believe that the knife is a tool, there is no harm in allowing the students to practice using it. Students may cut themselves sometimes, but hopefully it will not be more than a little scratch which is nothing detrimental in the larger perspective. This is a way in which we can connect our attitudes to our policies as teachers and leaders. How shall we face a problem like the

use of knives, where there is an obvious risk, and realize that the knife is necessary when dealing with this kind of outdoor life. The Canadian wilderness expert, Mors L. Kochanski, once said at a course I attended, that if you use a knife you can expect some scratches now and then. We can compare this to other activities and it is absurd to think, that as humans, we will never fail or make mistakes. This argument is not simple, and sometimes we have to make limitations because of the risk factors. Nevertheless, from a pedagogic perspective these are parallels and something important to consider.

16.00: There are many activities going on, so I try to choose a time when I will demonstrate various techniques. Here, it is important to take into consideration what the students are doing and making, so as to not to interrupt their activities. On the other hand, it is important to start the demonstrations before dusk. The purpose of the demonstrations is to encourage the students to be more self reliant; what they decide to try is their own choice. During the hands-on demonstrations, I intend to explain what I am doing and to relate to different subject areas, like history, but I also relate to the students' experiences with other types of handicraft. Moreover, I emphasize the openness of creativity. If we would like students to be creative, we must create opportunities for them to be so, and this greatly depends on the entrusted leader and how we behave towards each other. Our attitudes play an important role. From a creativity perspective as well as a learning perspective, it must be acceptable to make mistakes. This is an example of a pedagogic problem. For some students it is not easy to understand my demonstrations, but usually those students who do, can help the others. This leads to a group discussion on education in general, and how to develop and improve different learning skills that some students are proficient in, while others are lacking.

We can also discuss the value of skill-requiring activities. There is a great appreciation that the students experience after creating something with their own hands; I would not describe it as art,

but it is a good start. This is a piece of handicraft, and with some instruction, practice, and perseverance, the students could turn this into a fine skill. Either way, I am introducing the students to something that encourages creativity. Take a piece of birch bark, for example. You must open your mind to the potential uses for it, even though the barriers and difficulties will burden your thought processes in the beginning. You will soon see all the different things you can create, such as birch bark rings. From my experience teaching, many young people seem to think that they can pick up skills at the push of a button. Instead, a lot of practice is necessary to acquire a skill, and even more dedication to know it well. It is amazing to see how satisfied the students become when they have made a ring by themselves. They are so proud, with their eyes beaming with satisfaction when they come to show me the results of their work. I can only surmise what this experience does for their self-esteem.

16.30: Back to the description of what is happening. I sit and demonstrate different techniques and materials, where the historical perspective is often a starting point. One prerequisite for most handicrafts is tools, and I usually start to talk about the cutting edge. I also show two different kinds of stones, flint, and shale to demonstrate how they can be used, along with their similarities and differences. The flint is hard whereas shale is soft which means that an edge from these stones is used in different ways. I also give examples of things that can be made from these stones. One can make a piece of jewellery by using shale as material and other hard stones as tools. In this way we can make handicraft without using special tools, thus enhancing the creative process. From an economic perspective, this activity is efficient because the cost of tools is not a limitation. This description of cutting stones naturally leads to the topic of knives, with an emphasis on how the edge is built up and how to maintain its sharpness. Without a sharp edge the knife is useless for carving and survival techniques. Therefore I demonstrate how to sharpen a knife, of course supporting this information with safe handling techniques. I give the students tips on simple and inexpensive methods of sharpening, such as using masonite, emery board, and double adhesive

tape. It is not easy to sharpen a knife, as Bruno Seifert agrees points out: *You can learn how to sharpen up knives in a matter of years, but to sharpen up a pair of scissors is a real masterpiece* (Jørgenson 1990 in Molander, 1996, p.11).

I think it is advantageous for everyone to have the opportunity to work with hand tools when given the chance, since most people do not have access to woodworking or carpentry facilities. Students will often wonder why we are doing this, especially after I had made a piece of string out of nettles fibre (a classical twisting technique). They wonder, why make these things when we can buy them cheap? This is a very good question, to which I give three reasons as to why I made this piece of string. The first, and maybe most important, is that there is a greater appreciation for objects when we make them ourselves, see the results, and use them for different purposes. The nettles string can work as a bracelet as well as a cord. The second reason is the attainment of string-making skills. If you have tried this simple technique, you can probably understand how all kinds of ropes and strings are made. The third reason is related to history; you can experience, first hand, what it was like for pre-modern civilizations to carry out everyday tasks and techniques. From an archaeologist's point of view, this ability to connect to primitive methods of life has been very important for the development of survival techniques in the wild. This ability to make a string out of nettles could be the determinant of survival under certain circumstances. We can have the same discussion about other kinds of materials, such as birch bark, which is very useful when starting fires due to its oil content. You can extract oil from the bark if you know the proper procedures, as you can obtain tar from pine trees. (Sweden was in the beginning of the 1700's the leading producer of pine tar, which can be used to protect and preserve boats, etc.) An old tradition in Swedish culture was to make tar, as well as charcoal, with a group of pupils. The production of charcoal, by making charcoal stacks, was necessary for the development of ironworks by black-smiths.

Tree roots are also very useful in survival techniques, dating back far in history. They can be used as strings or ropes, and depending on how you split the roots, this will determine the specific use depending on their thickness. (For further descriptions concerning this form of woodcraft, see Kochanski, 1988). Preservation of roots is also important, as you should always work with roots when they are wet. If they are dried out, simply put them in water and allow them to soak for a while. Drying is also a method of preservation in terms of food. It is a very old method of preservation that is still used today, such as in dried fruits, vegetables, meats, or in freeze-dried products. This is a good experiment for the students to see how much liquid weight the food loses after it is dried, and also how the texture and taste changes too. Drying food is very favourable when hiking or back country camping because it is very light to carry, making the journey much more comfortable.

Working with birch bark and roots encourages inventiveness within the students. Even if it is not for survival purposes like it was in history, it improves the problem solving skills of the students. I also show them how to make different kinds of knots for specific uses, but also the methods behind knotting. One way to remember how to make knots is to create a rhyme or story that the students can link to the different steps. You can also just demonstrate the process and let the students try it themselves. I also show fire-making through the use of different types of modern equipment, steel, and those tools used during the Iron or Stone Age. The creation of fire has always fascinated people, maybe even more so today as it is not as pertinent to everyday life; therefore it seems more exotic.

After the demonstration of fire-making, the students realize the knowledge and skills involved, and how important the preparation of materials is, as well as its practice. For example, to make a fire in Iron Age style it is not enough to only use steel or flint, you also need tinder, and you have to

prepare the tinder beforehand (this is, of course, depending on where you are, which country, which region etc., and which plants are available). I continue talking about more techniques, such as concerning skins (even from fish), bones and wood, and what to make of these materials (toys, musical instruments, etc). Another important topic to discuss about being outdoors, is the exposure to different weather conditions and how to prepare for this in order to maintain comfort. There are many factors that affect us while being in the bush and we discuss the importance of being well equipped. To be and stay dry, warm and not hungry are factors that mean a great deal for our well being. This is, however, not only a question of having the right equipment, but also the knowledge of how to use it, which is very individualized. We all have different body temperature comfort levels and react very differently to cold, so there will always be some people who freeze more easily than others.

17.00: The evening is coming closer and it is time to start cooking. The group has decided to have dinner at 18.00 so it is high time to get ready. Since we have to do everything ourselves, it seems to take more time than expected. In practice, my role is to ask and answer any questions, or voice alternatives to any problems that the students need help solving, but for the most part I allow the students to solve problems themselves. It is important not to choose the methods the students use for group activities, even if I think there is a better solution. If it works, it works. I am always motivating the students depending on the situation; if they do something wrong, I will get feedback instantly. This is also something we can reflect on and discuss in relation to education in general.

18.00: The food is cooked and the students start eating. In general, the students work in small groups and some groups do the cooking together. I usually taste the different groups' results and find it is always good, even if it varies very much. Hunger is one important factor affecting ones perception of taste, and I almost never hear any complaints about the food not being tasty.

19.00: After the dinner I gather the students and we discuss and reflect on the day so far, and especially the quality of the dinner. We also talk about what is happening next and what has to be done before dark; maybe something has to be built or arranged. We talk about the dinner and the experience of participating in the cooking. At this moment it is relevant to reflect on the fact that we are living “outside the walls of society”, outside the world where we live our lives with great convenience, with easy access to almost everything at all times. We push buttons, turn taps, and twist knobs, not thinking about the intricacies of how things work or where they even come from. This can lead to a feeling of alienation and an undervaluing of many things that people less fortunate see as a luxury. A discussion may often ensue regarding the implication of the activities I am showing, and the bare essentials needed to be human. From a pedagogic perspective, to work outside under these conditions forces the students to face human problems, motivating them to take up the challenges and solve the issues.

The outdoors is full of possibilities where the concept of wonder is important, especially from a pedagogic view. Stefan Edman (former adviser to the Swedish prime minister, concerning environmental questions) helped me immerse in this concept that depicts the meaning of what I am discussing; the fascination with nature and the endless thoughts and philosophical speculations that arise when in the outdoors. When we start to wonder, or get enthusiastic over something, it sparks an interest or a motivation to seek further answers. We as humans, like to experience and know more. This feeling of wonder usually arises in connection with activities out of doors. As a leader or teacher, we have a responsibility to supervise, and to encourage people to see new perspectives and experience things they never have encountered before. We can never really teach the students how to enjoy these experiences, but we can try to spark some interest and perhaps to see life from other

angles. Hopefully they can learn something from my actions, which does not mean that they have to agree.

Waterfalls, and water in general, have always been a source of fascination for people, generating a flow of wondering thoughts. This wonder can spark an interest, making it possible to go on and reflect on water from different perspectives. Edman (1984) writes that water is a most peculiar phenomenon. It is the dominant chemical compound on our planet and we know that life would be impossible in our solar system without it. Life has no future if we do not learn how to interact with water with love and a sense of wisdom. Knowledge is not enough; we have to define and develop what kind of knowledge we mean. Here we can relate to Aristotle and the concept of *phronesis*, which Gustavsson (2000) describes as practical wisdom, meaning that all decisions and considerations humans have to make should be in the interest of everyone else in the long run. This becomes an ethical and political question. The supply of water is a necessary factor for survival. An overview of the world today tells us that we (in the Western world) are privileged with almost unlimited supplies whereas most people elsewhere have problems with water supplies. We, as an educational group, can relate to these issues in a way different from our daily life, as water in the bush may be limited or unattainable; therefore we may have to bring in all water needed ourselves. This makes it relevant to discuss the concerns of water management in society. Is there a reason for us to employ water limitations? Does it help people in Africa?

In a survival situation water is, next to air and heat, the most important factor. However, during our situation in the bush it is not the case of survival, but it becomes interesting to discuss these rhetorical questions. I ask these questions because I often notice, amongst my students, that there is a waste of waste. This is probably unconscious because most of these students have never had to ration their water before, as it has always been abundant. For this reason, I give examples of how we can use our water more efficiently and be more conscientious about water management. This

becomes more important the more difficult it is to get water, like when I am teaching winter courses and we stay in snow caves overnight in the mountains. Here everybody has to melt snow, and also consider that some sort of fuel is necessary to start the heating process. If you have not taken these things into consideration, fatality is consequential. This is especially so under winter conditions because the activity then is very physically demanding, therefore making water even more vital. In such situations you must be very conservative and reuse everything you can. This means not throwing away the dishwater, instead you must use it as drinking water and think of how to use any liquid you have wisely.

With this in mind, we can go forward and wonder about how essential the water that we drink is, and always has been. Imagine that this fascinating liquid (the water of life) may have flowed around in a stomach of a lion in Africa, or diluted the blood of a killer whale in the Arctic Ocean, or may have been seen as small drops on a silvery fern one early morning three hundred million years ago. Stefan Edman (1984) writes that while we read this, the gleam in the liquid behind the cornea splits, so the light hits the yellow mark and we are able to see the words in the text bright and clear. This little lake with water from the Sargasso Sea may have contributed to create the white, woolly cumulus clouds in the summer; an example of how your thoughts can fly away. This exposition could, of course, be made during an ordinary classroom lesson but in the outdoors setting the question concerning water becomes more relevant and therefore more meaningful.

Now back to the activities in the bush.

It is time to plan for the evening and the night. There are possibilities to build an Indian sauna (sweat lodge) and to make pizzas for those who wish. Baking pizzas with my outdoor classes has always been a popular activity for everyone, especially among children and teenagers. Well-organized planning is necessary to sort out the equipment and ingredients needed in the baking, as it

will soon be dark. Also, the students have to take into consideration the possibility of rain at night, and therefore will have to find a protected area to house their equipment. Of course, students will be very responsible when it comes to putting away their personal belongings, but group equipment seems to be more difficult. For the night, everyone will be sleeping in tents which can fit ten people comfortably, and depending on how cold it is, they can make a fire inside. After dinner there will not be anymore organized activities but I will be around for those who have any questions or just want to talk. I believe that freedom at this point is important for the students to feel relaxed and to have a chance to connect with nature at their own leisure. But before they go off, we decide on a time to start the next morning's activities.

19.30: Before it becomes dark we have to get materials to build the Indian sauna according to North American tradition. We need thin poles to make the framework and stones for the heat. The building technique is valuable to the students even if they do not make a sauna because the same structure could be used for playing as well as a shelter. There are also some special things to consider when building the right sized framework so that you do not need any string. Take into consideration that experience with building structures is helpful when trying to put the structure together properly. In the middle of the sauna there is a place for a fire where stones are placed in order to create warmth; you can actually see when they are warm enough. This technique, which is about heating stones, is the same as when you cook food in earth ovens. This is once again an example of how important it is to create new experiences with the students. Successes and failures contribute to the whole experience, creating knowledge with this technique of cooking. I give them, of course, some basic advice but even with no experience at all it is possible to tackle the challenge of creating an earth oven. What is the worst that can happen? The food may not be cooked properly, but the students can learn from their mistakes and will be apt to do things properly next time. The most common error that occurs is that the

stones have not been heated enough, either because the type or size of fire is not effective, or the stones have not been in the fire long enough. The amount of food in the earth oven can also impede cooking time.

20.30: At this time the Indian sauna is ready to use and some of the students are preparing the dough for making pizza. While others are using different handicraft techniques, some are arranging places for sleeping or chopping wood, and some are taking a walk or sitting in groups and talking quietly. This sort of situation is always very relaxing. Everything happens within the light from the kerosene lamps and the fire.

21.30: The stones are hot enough and ready for use. Shovels are used to carry the hot stones from the fire to the little hole in the middle of the sweat lodge. If you do not have any shovels you make a large pair of wood tongs. We have had to resort to this many a times because we do not always bring shovels.

Most of this present writing can be referenced to the concept of “knowledge-in-action”, which Bengt Molander (1996) writes about and tries to develop. He argues that we have a partly neglected tradition that can be named the practical tradition of knowledge. In this tradition, knowledge and action are connected to a tradition built on involvement and dialogue between people, but it also involves materials, tools, etc. Molander also means that this tradition or culture maintains in contrast to the theoretical tradition that is characterized by dualism where knowledge is separated from the object. You can have knowledge but do not have to put it into practice, knowledge being formulated in words and numbers. From this discussion we return to the situation concerning the sweat lodge. Once the hot stones have been placed inside, everyone must get in immediately. Water is poured on the stones frequently, to create more steam. This form of sauna can last for at least twenty minutes, depending on how big the lodge is and how many stones there are.

Outside the sauna, gathered around the fire, the students are busy preparing the pizza ingredients. Once completed, the pizzas are placed into the reflector ovens and the waiting begins.

22.00: Around this time, the temperature in the sauna decreases, so the students get out and get dressed. Many people think that saunas are a very strange tradition, especially when it is done out in the bush. This activity shows the students how important experience-based knowledge is; it is a very inexpensive project, with little water necessary, and where skills and knowledge are more important than equipment. I believe that the sauna experience increases ones well being, not only because it is a very relaxing pastime, but because the students gain the satisfaction of creating something on their own in the middle of the forest with no supplies or electricity.

22.45: By this time, all the students are full from dinner, have gone to bed, or are gathered around a fire. A campfire has an extraordinary ability to bring and keep people together. It encourages interaction and communication among all different kinds of people, creating a cosy and inviting atmosphere where people can just sit for hours. The attractive power of the fire and how fire can affect us is fascinating. This may be related to the concept of wonder, something that we can share and relate to our ancestors. People sit and talk about all measures of things and it is not unusual to hear people discuss deep subjects like the meaning of life. Thoughts concerning death as well as questions about philosophy and religion are also common. From my experience people get closer to each other around the fire. Imagine the warm feeling sitting next to the fire seeing the red glow and the flames changing colours. It is like a picture in motion. A situation like this affects us in different ways and means a great deal for the value of the experience, which brings up the question of: How can this happen among people who do not really know each other, and where some of them have just met? Does this depend on the situation and the atmosphere described above?

In education, it is important to see things from many angles and perspectives, especially when new teachers are introduced to the profession whose responsibility it is to supervise and teach growing children with very different backgrounds.

23.00: Astronomy is an example of a subject that can contribute to new perspectives.

At this moment the sky is clear and dark, so we may be able to see some celestial bodies. I ask the students if any of them would like to join me on a star gazing walk. It is not important if they know the names or locations of the stars, but it is always interesting to know how to identify some of the major ones and to discuss how vast outer space actually is. People find it hard to comprehend the perhaps infinite amount of space that the universe encompasses, and become scared to think about the possibility of other life out there. Are we even lucky enough to see a shooting star?

My experience tells me that many people have never seen shooting stars or planets, or know how to navigate from stars. These kinds of experiences are fascinating and make people wonder.

Astronomy is taken up with young children just because it fascinates people. Is there any life in the Universe except for on our planet? Looking at the sky is also an aesthetic experience of beauty.

I would like you to imagine this scenario that surrounds me for a moment; I am standing, looking up into the dark sky for stars on a brisk autumn evening. At the same time, some of my students are gathered around the fire carrying on multiple conversations with hushed voices. Whereas others just lie down on their mattresses, looking up at the starlit sky. This is an amazing experience that makes me think of an old jazz hit, “The best things in life are free”, a song that was a top hit in America during the depression time in the thirties:

The moon belongs to everyone, the best things in life are free. The stars belong to everyone; they gleam there for you and me. The flowers in spring, the robins that sing. The sunbeams that shine, they're yours! They're mine! And love can come to everyone; the best things in life are free.

24.00: Now it is time for me to go to sleep while the activity around the fire continues. Sometimes the students bring guitars or harmonicas and the songs last for hours.

07.00: Around this time I wake up, pack all my equipment together, and then light a fire (sometimes the students have gone to bed late, so I can salvage what is left of their fire by blowing some oxygen into it). I start to make breakfast and after that I go and wake up the sleepers. Generally, I am the first to wake up. If somebody wakes up before me it is often because they have, for some reason, been freezing or had other problems sleeping.

08.00: I discuss the previous day's events and the experiences from the night, and reflect on what we have learned from them. I find that many of the students do not sleep very well, mostly because they are not used to sleeping outdoors (no soft bed, cold temperatures, disturbing noises, sounds from nature, snoring mates, etc.). My purpose was not to put them into an environment of discomfort, but to make an example of how important preparation and experience is when dealing with the outdoors. Yesterday I discussed with the group the many techniques that can be used to improve comfort when camping, but sometimes informing just is not enough. If we would have stayed another night I am sure many of them would have learned a good lesson because they would have been motivated to learn. Auditory learning works for some but not for all. People learn in different ways and if we do not experience things for ourselves we do not know how we would react (during a tour I made once, one of the students told me that she had never had a single good night's sleep when tenting). The first two nights she froze, but the third night she was open to suggestions and she listened to my advice and had a good night's sleep for the first time in her life. After the period of reflections and recaps with my present class, I talk about the upcoming events of the day. It is still a bit chilly this morning and to feel warm I introduce a morning dance to get the blood flowing. After this we have to start again working with a Stone Age inspired cooking technique. We need to warm up stones using the same procedure as in yesterday's sauna project.

We also need to dig a hole in the ground where we can put the hot stones, making sure there is enough room in the hole for the food to be cooked. This cooking technique does really involve all our senses; since the food is underground and covered we are not able to see or smell it.

09.45: The stones are now ready to be put in the hole. First we put them at the bottom and then we cover the walls of the hole. We prepare the food by wrapping leaves of birch bark around it. If the season is right, I can bring some rhubarb leaves from my garden; palm or banana leaves are the best but are very hard to find in this region. We then put the food in the hole and cover it with either mosses, ferns, twigs (juniper or spruce for more flavour), fungi, or herbs. If we have done this right we are not supposed to see any steam from the ground. This is, of course, depending on where we are and what we can find there. Cooking time depends on the size and type of the meat/fish and the temperature of the stones. Fish does not have to reach as high a temperature as meat; to be sure you can use a meat thermometer. This cooking technique could be referred to as a kind of steam cooking. It has been used in many places around the world and is still used by many groups in countries around the Pacific (among Maori people in New Zealand, this is a popular activity and a way of cooking at weddings and parties). It is also one of northern Sweden's most common relics of the past.

10.00: I present another activity that we can use in outdoor education, something of importance when it comes to survival. A sort of moisturizer cream made of resin (spruce or pine), bee wax, and oil (olive). All these ingredients have, one by one, been used back in history for different sorts of healing reasons. These three can be mixed into a cream that is good for dry skin and small chaps in the skin and also for preserving leather and wood against water. This is an example of "knowledge in action", where everybody can be involved and everyone will also receive some cream in a little plastic container (I use photo film containers, which you can get for free at a photo shop). Other

than the joy in making this, you learn how these products are processed; knowledge in action. The morning events before noon are similar to yesterday's, meaning that the students can choose what they want to do depending on their interests. We also need to arrange equipment and gear so we can leave in time; we can save time if we are prepared. My expectation is to leave no tracks whatsoever. This is also a fruitful starting point for a discussion about environmental questions and how we can affect the environment through our actions.

11.00: The small cans are now filled with the resin moisture and for those who are interested they can make their own labels (sometimes when I have done this activity with a group they have started to sell small cans to get money for a school trip, etc.).

11.15: Now it is time to have a taste of the salmon. We remove the covering and open up the birch bark to take a look. Everyone can smell a strange scent of cooked twigs and moss, and the scent of hot stones. We then cut up the salmon, and after everyone has had a taste we talk about the wonder that this creates among us; imagine cooking like this in the middle of nowhere, out in the forest, with no conveniences at all. We can reflect on the concept of time and discuss our society of speed and effectiveness, where this way of cooking in comparison to microwave ovens seems strange and old fashioned. Our attitudes toward time are worth reflecting upon, and how learning takes time. Bodil Jönsson (1999) discusses the fact that we try to be overly time-efficient in order to get as much done as we possibly can in a small amount of time. She mentions TTT, which means Thoughts Take Time. Here outdoor recreation could play an important role provided that we have enough of time. I mean that we need time both for practice and thinking, but also time to reflect. The "fast" concept was chosen as the keyword of the twentieth century and we can ask the question: Is this a product of the Western world? At the public defence of my cousin's Doctoral dissertation, two proverbs were pointed out that are worth reflecting on, one was from Greece; *Time is human's teacher*, and one from Africa; *To be in a hurry doesn't bless anybody* (Bernander,

2003). What can we learn from these? These proverbs, words of wisdom or sayings, sometimes have an unknown author, while at other times it is a well-known philosopher, or is just signed “Old Proverb”. The origin of these may well vary a great deal as well as their level of wisdom. Yet most of these sayings have been expressed by experienced people who have taken a great deal of time to reflect on life. They have then come to a conclusion and have been able to express it in an inventive way. Some of these have gone from generation to generation and these could be called expressions of phronesis. If these really are about wisdom they can, of course, be discussed and we also have to consider in what context they were created. Some of them can be understood but have no validity over time or from culture to culture. The example, “all alone is strong” may have been meaningful once but remains in contrast to what I try to put across through my work. This is a matter of evaluation; is the proverb helping or interfering?

11.30: To carry on with the final day and night out in the bush, we move on to the “Talking-stick Method”, a form of evaluation. We take a stick and pass it around from person to person, and everyone says something about what they have learned from their time out here, or about any new experiences. It is only the one who is holding the stick who is allowed to speak and no one is to make any comments whatsoever. Everyone becomes noticed and it also seems that the stick makes the holder more confident (powerful?). The students talk about how they have realized the infinite possibilities that the outdoors create. They know more about what to do outdoors and they point out the value of just being in the open air. Meeting others in this context proves to be very beneficial for creating new relationships amongst students. It dawns upon the students how contrasting this is to our daily lives, and the students become very grateful for the lifestyle that they do live, with showers, beds, and clean clothes. The students are now seeing life from a different perspective, which is something that you cannot teach in a classroom. It does not mean that we need to be retroactive, living like people during the Stone Age, but it is a way to relate the concepts of health, wellbeing, and welfare. *Can we perhaps, in our modern society, learn something from our*

ancestors, the people we often call primitive people? What do we mean when we use the word primitive and modern? What is welfare, and what is it to be poor? Is it the amount of money in our pockets that determines who is poor? The archaeologist, Göran Burenhult, (2003) points out that it is not. He has been living together with traditional cultures (those that have been called primitive). There are millions of people in the world who live their lives with little or no money. They live without major involvement with modernity. They do not have any organized health care but they are generally healthier than most people in the Western countries, both physically and mentally. They work together as a group solving problems, the most important one being food hunting and gathering. The family is the centre focus within small and large groups. There are no policemen, and violence, stealing, and vandalism are generally uncommon. Ill-treatment of wives and children as well as sexual acts of cruelty against children do not exist. Burenhult asks if these societies have a lower quality of life? This kind of question is worth reflecting on, especially when we today hear and read about lifestyles important for our wellbeing (health). Another phenomenon to ponder is Burenhult's (p.261-262) measure of humanity's time on earth. He writes that:

if we use one year as a measure of how long humans, so far, have existed on earth, we have been hunters and gatherers from the first of January until the thirtyfirst of December, 11.45 p.m. when agriculture and stock farming was slowly introduced in the Near East. At 11:59.50, ten seconds before the end of this measure, the time of industrialization began.

As a finale to these evolutionary perspectives, I would like to refer to Burenhult's (p.257) question:

Do you have a greater well being when you sit and wait in a line of cars on the way to work compared to canoeing in a lake fishing for today's dinner?

11.45: The group goes back to the University; we wash the equipment and hang it up for drying.

12.00: 24 hours have gone by since we went out in the bush and everybody is back (any loss of students, whatsoever, is unacceptable).

FINAL REFLECTIONS

What I have tried to describe in this text is a course syllabus or outline of what and how I have been instructing for many years. This course could be altered by making it shorter or longer, and the focuses and purposes can vary as well. My ambition has been to describe the activities as detailed as possible in order for the reader to understand the situations and hopefully appreciate the atmosphere I want to develop. Whether or not you, as the reader, were able to relate to this writing depends on what I refer to and my style of writing. I have also tried to describe the decisions I have to make, many of which are related to my feelings. We can call it intuition or tactics related to both mind and body, based upon senses and past experiences, etc. The type of leadership that I express will be different from anyone else, as personality determines behaviour. Even if we all had the same view of humanity and knowledge, our personality would colour our behaviour in different ways. The idea that we are the tools for learning ourselves is important to reflect upon. Does this way of working suit me? Do I manage to work under these circumstances, in this way? Are these different activities affecting the students, and in what ways? How could I be sure of that? I may not know for certain; it is rather a matter of deciding and determining, depending on what happens under the specific circumstances. All the time I have to decide whether this is the best, or if I need to change plans. To say that everything goes well all the time and works perfectly, is wrong. It is not an utopia, but I hope for the best for the group. I think that my policy, or philosophy, which involves an aspect of freedom and decision-making amongst the students, fulfils my goals for this introduction to outdoor education and recreation. The potential to learn new skills and to attain greater knowledge is readily available, and the students are given the opportunity see things from

another point of view. In order to be successful with this, the learner has to be open-minded. I would like to refer to Broady (1984), who believes that valuable learning is often unplanned and the aims could be different from those that were stipulated. This can be related to the eighteenth century when the German word “bildung” (education concerning creation of knowledge; my own translation) appeared in pedagogic discussions. The meaning and the origin of this word is that humans create something new, which must not be taken for granted.

One dilemma is that I have to consider the level of complexity. The more experiences you have, the more complex is your view of the field or subject you work in. We can never see ourselves as the frame of reference in a situation as teacher or leader. This means that we, in some respect, have to simplify the complexity of reality. If we do not, the situation would be that we have to answer all questions by saying “it depends”. In fact, this is an accurate way to answer in most cases because most problems can be handled in different ways depending on many things (different perspectives, aspects of time), but it would be an unworkable situation. The dilemma here is the balance between complexity and simplicity. It is once again a matter of making decisions and to question to what extent, but also to be aware of the consequences. Bodil Jönsson (1999) states that if you try to simplify something complex, it may result in an offence against the core of the phenomenon. She compares complexity to a tapestry. If you pull out the threads from the fabric both the pattern and the shape will be destroyed. She believes that complex phenomena have to be twisted and turned and seen from different angles. She associates this concept to that of time and our attitude towards time. I argue that that this discussion is valid also in other contexts and realities. It must be handled from different points of view. When discussing trustworthiness I wish to refer to Molander (1996) who points to “trust – criticism”, which comes from the relation between the master and the apprentice. If the students’/participants’ attitudes are very critical they may put too much energy into criticism instead of into trust towards the teacher. This may sound strange and contrasting to

the general attitude recommended in education. What I mean here is that sometimes it is better to do first and discuss or reflect after. It is again a matter of personal decisions and considerations. A few months after my course I asked the following questions to some of my students: *What did you learn? What kind of new perspectives, thoughts and ideas did you get?* Most of the responses involved recognition that there is a wide variety of things to do out in nature, with only the simplest means and methods needed. They all had new ideas of how to cook outdoors, how to create variations in the learning process, and how to make education more exciting. They also admitted that they learned through making mistakes. They pointed out the wonder and the fascination of the open air; the relaxing atmosphere, the darkness, and the silence: *For the first time in my life I chopped wood and I was really proud of myself.* For new upcoming teachers in physical education and health, they believed that during this overnight trip, they realized what the outdoors can mean and offer to pupils in school. You could offer a multitude of activities by simple means. The activities are in contrast to their everyday lives. It was also a method of getting away from their ordinary reality and a way of getting to know each other better: *We came closer to each other in an easy way, and when we didn't have TV we talked instead, and it was both interesting and fun.*

These answers are similar to those from the “Talking stick activity”. The students will learn various things from this form of education. In the opening of this text I wrote about how, from the beginning of humanity, we have learned new things, developing and refining our tactics and knowledge by learning from other people; from each other. This was obviously a major occurrence in this overnight trip. Some of the students were very quick to learn and they then take on an instructor and supervisor role for their classmates. I think it is very important to see knowledge as something integrated in our lives.

I hope that this long description depicts how important our senses are for this type of learning process. We must acquire knowledge ourselves and see knowledge as something integrated with and in us. This sort of education provides an opportunity for students to try new techniques for everyday tasks, enhancing a creative atmosphere. This could develop a higher sensitivity for the weak signals that affect us. It's also a matter of cooperation instead of concurrence; the belief that all alone is strong is not strengthening during this education.

In this outline I have described and given examples of practical activities that can be used in different areas, subjects, or theories. The description did not cover everything in the course, but I hope that the story shows the complexity of leadership as well as learning. To write about experiences, problem solving, and reflection can help support what we are doing, leading to tested experiences.

How do I feel after a teaching experience like this? Sometimes I hear comments like: *It must have been nice out there, what nice weather*, etc. Surely it is nice to be out in the fresh air teaching and instructing all these students and watching them experience new things, but after it is all done I am exhausted. It is mostly mentally draining because I am so involved with the students and concentrating so much on being the leader of a group preparing for professional work. Also, this leadership role involves considerable perceptiveness and attention to detail when reacting to the different situations that the students create. It is also important to be open-minded and always present. Finally, I would like to refer to Molander (1997, p 157) who has influenced me a great deal in my philosophical insights into knowledge:

Practice and practice again, to try again, takes time. The understanding – or learn how to learn – demands changes, changes between perspectives, and time afterwards for reflections. If we do not

understand the whole we will not understand the parts. This is to some extent a maturity process that cannot be forced, and it can take a long time to discover and understand how long it takes to learn.

In closing, I would like to refer to Xu Chi (1956) who has written the poem “The people of Sani”. This poem describes, in another way, the point I set out to convey throughout my text:

*The tribe of Sani in Yúnnán does not have many inhabitants
Yet, there are about 20.000 musicians and about 20.000 poets and about 20.000 dancers
There are also about 20.000 farmers and about 20.000 shepards
But do not think that they are more than 100.000 inhabitants,
They are all together not more than about 20.000.*

EPILOGUE

Below are some more ideas of different outdoor techniques, and how they can be applied within many different contexts and circumstances:

The fire

The fire acts like a magnet for young people as well as old. All of us have probably seen children standing by a fire, picking and poking for something interesting. It is obvious that they want to investigate. Their wish to explore, examine, and learn comes from their own interests.

I will illustrate in how many ways a fire can be applied, in general, and in most school subjects within the area of “humans and nature”

To make a fire is one of humanity’s most important inventions and discoveries. Without the fire we would not have been able to leave the tropical climate in Africa and move to the other continents on earth. Many handicraft techniques, at the dawn of human civilization, would not have developed

without fire, such as burn beating, ceramics, metal production, tar, and charcoal. History comes alive through these outdoor excursions. We use chemistry and physics to understand and describe the many techniques concerning fire making. When we rub two pieces of wood against each other the friction makes the coal powder glow. The head of a match consists of different materials, and when we mix potassium permanganate and glycol by self-ignition, a chemical reaction takes place. This method is used in Canada to start forest fires. It is used in unapproachable wilderness areas where ampoules are thrown out from airplanes along a line. These forest fires would be almost impossible to create in any other way. This is done on purpose for nature preservation and care but also to create a fire in order to limit a present unwanted forest fire.

If you want to make a fire successfully with sticks it takes at least two people. The technique is difficult, so good balance, strong physique, and cooperation is necessary. Fire making with sticks was not permitted in Sweden during the eighteenth century. The country people believed that smoke from the magic fire made by sticks could heal. This was probably a relic from the time before Christianity. Consequently the church, but also the proponents of enlightenment, were horrified by this “magic” and it was consequently forbidden. This shows a connection to both history and religion.

If you would like to be successful in, so called primitive fire making techniques, you need knowledge about what kind of wood that works well, or how to find and recognize shelf fungus and from this prepare tinder so you can make fire with steel and flint. This process connects with natural science. However, it is not enough to know how to do this, you also have to practice so you know how to do.

During the time we work with these fire-making techniques we can discuss where and when these methods have been used and by whom. We can also talk about our own society and how we deal with sustainability. We are used to getting things very easily and suddenly in this environment we have to think about how we can save materials. Birch bark is very good to use when we make a fire.

This means that we have to save birch bark so we have some left for the next time we would like to make one. In other words, we are not wasteful if it is enough with just a little. Bark from juniper is also very good to use when making fire but it is arduous to collect and you also need to prepare the bark. After experiences from primitive fire-making you realize that it is important to save materials, meaning that you do not use more than necessary. When you have a lack of water or if it requires time and effort to get it (for instance when you have to melt snow or ice to get water), this problem becomes obvious; something worth discussing. If there were a lack of something we would not waste it. Here it is meaningful to talk about resources, both from a local and a global perspective. Fire and fire making can also be developed within subjects like health, creativity, mathematics, art, handicraft, cooking, and many other subjects. When we take an approach to a subject in this holistic way, the potential for learning and insight is almost inexhaustible.

Cooking

To eat is a basic, natural, and essential part of our daily lives. Cooking is a crucial part of outdoor education and recreation. No matter what the purpose or the activity for the day is, everybody needs food. There are endless possibilities for type of food and cooking techniques. Still, we can, of course, take food with us and we can use high-tech gear for cooking, but nonetheless, the opportunities are plentiful with the ways a fire can be used for cooking. There are different ways of building a fire and preparing the meal, depending on what and how you will cook; for example, boiled versus fried or smoked food. You can use heated stones for boiling water, and you can also make an oven by using stones depending on whether or not you have a sufficient number of appropriately sized stones. Whatever you can make in a conventional oven, you can make using this stone oven; it just takes a little longer. If you have the knowledge and skills for this kind of technique, there are boundless recipe ideas. From this background we can discuss how and when these techniques have been used. We also have to realize that cooking may not need any more

motivation or purpose than eating good food. Even if there are certain principles concerning cooking, there is always room for creativity.

The drying of meat, fish, vegetables, and fruit is another method, which is useable in outdoor contexts. This method can also be combined with smoking; this preservation method has been used since ancient times and it is still very relevant for use in the outdoors. The reason for this is especially because the food becomes lighter and less voluminous. This technique can be studied and documented concerning weight, volume and taste. This can, furthermore result in a practical contribution to learning about what happens in a process like this which can be applied to mathematics and chemistry, as well as history. To eat and drink is still a necessity for our survival, but also presents a possibility to get together and have a good time. Therefore I am convinced that activities concerning cooking are meaningful for all involved. Another aspect of meaningfulness is that everyone can choose what they will work with and how much. It is not necessary that they all do the same thing at the same time. Food, water, and cooking can in this way be an interesting and dynamic field to work within. Pupils and students can be inspired and engaged in learning more about different species, and how to identify and know how vegetables, fungi, and herbs can be used. Cooperation and joy appears almost automatically while cooking and when we have a meal together. Other fields of subjects to which we can connect are the physiology of the human body, nutrition, and health in Sweden as well as in other parts of the world. Water can be discussed from the perspective of human needs, such as clean versus polluted water, in different areas in the world, etc. From this as a point of departure we can discuss environmental questions and ecology.

Tools

Tools are necessary and a precondition for most work and handicraft. The fire and how to handle it, is also a precondition for making tools. We can also discover that handicraft is related to cooking, and to making a fire is also a form of handicraft. You need to know a great deal about different

materials and how to use them if you wish to become successful at fire-making. These varied types of handicraft can be connected to history and geography, as well as to different cultures. They are also relevant in conjunction with survival techniques, but are also connected to aesthetic dimensions where every learner can create something according to their own ideas. In this way, many purposes can be combined and involved where the learners are able to make their own choices. This gives them a feeling of independence and success, which can only increase their self-esteem.

The main theme of this text has been how to make education more lively and practical. If we put more value in practical activities connected to learning, the content of school becomes more interesting, opening the doors to life-long learning.

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