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Children's attitude to nature as seen
through school educational systems in
Norway and Ukraine: children's perception
in relation to educational objectives

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TRANSCULTURAL EUROPEAN OUTDOOR STUDIES (TEOS)

**Department of Physical Education
Norwegian School of Sport Sciences, 2014**

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Abstract

Human-nature connection has changed drastically since the Industrial revolution, with technological development alienating people from natural environment. Educational institutions have major responsibility for how future generations form attitudes to nature and nowadays nature is often experienced and learned about in artificial environments. This research aims to identify how children perceive nature in Norway and Ukraine through public education systems. One class in one public school in each country has been chosen for the research. Both schools are located in urban areas and sample consisted of a total of about 40 sixth grade pupils aged 11-13 years old.

Taking into account the historical background and educational approaches in both countries I assume that Ukrainian children do not form as strong connection to nature through schools as Norwegian children do. Therefore the following questions were identified as central to the research: What are the similarities and differences in children's attitudes to nature in Norway and Ukraine as seen through school setting? What are the main similarities and differences in the approach to education about nature in both countries? What are the possible effects of the curriculum design and educational objectives on the way children experience and form attitudes to nature in schools? I feel there is something strange with this sentence, but I am not sure what it is. The qualitative research was chosen to generate data, which was collected in form of essays written by pupils. Comparative Education Research was done on the national level by analyzing and comparing national educational policy documents and subject curriculum between the two countries with the short historical description of the contexts in two countries provided.

As it was assumed, in Norwegian education setting, where being outdoors in nature is valued, children have multiple different experiences and interact with nature more directly than Ukrainian pupils, for whom the nature is more often a background of man-made environment. In school setting Ukrainian children's experiences of nature are limited to fewer places, seasons, weather and activities where they are often spectators rather than participants.

These attitudes are consolidated by different approaches to education about nature in policy documents. In Norwegian approach an important emphasis is made upon experiencing nature directly and acquiring practical skills from being outdoors. In addition, nature is seen as a factor that influences the formation of national identity. The emphasis in Ukrainian policies is made on valuing nature for its resources and beauty, which should stimulate a positive emotional and aesthetical response and encourage pupils to interact ecologically reasonably with it.

Key terms: nature, friluftsliv, public educational system, Norwegian context, Ukrainian context

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1. Introduction.

When working with children in schools and scout movement in Ukraine I already could see the difference learning in nature can make. When later during my Master program I was introduced to the concept of friluftsliv in Norway I became very interested in how it is realized in educational system. In Ukrainian curriculum studies about life in nature or nature itself is rather theoretical. Friluftsliv is taught in Norwegian schools as a part of PE. A subject of PE in Ukraine is designed for testing physical abilities mostly in specially constructed areas like stadiums or indoors. Children do not form strong bonds with nature during school time, and one of the reasons for that is the lack of extracurricular activities, trips, excursions to nature (Kushakova, 2012). The aim of this research is therefore to find out if children in Norway and Ukraine experience nature differently through educational setting and what are the possible effects of educational policies on how children can experience nature through schools.

Norwegian society has had a strong relationship with nature for a long time; friluftsliv as a philosophy has been present in Norway for over a century. As the cultural phenomenon it has now become more than just a part of everyday life in Norway and is used in educational setting as well. It is, I believe, especially important nowadays when people become more and more alien to nature, surrounding themselves with technology and urban landscapes. McKibben (as cited in Milton, 2002) mentions that nature is now hugely affected by human deeds, there are no places on Earth that would not be influenced by people and this has changed our perspective on nature; what nature means to us has changed. Too often nowadays people see themselves as masters of nature.

Ukraine also had a strong tradition of being connected to nature (Kononenko, 2005; Polovets, 2006). However, the course of country's development over many decades has led to the decline in culture of treating nature as before (Kononenko, 2005). In my opinion nowadays most people in Ukraine see nature as a tool, not as a place they live in. They are rather unconscious about the natural environment around them. And while it is quite difficult to change the habits of adults it is children that should be in focus when we talk about conservation of nature, building closer relationship with it and feeling more at home in nature in the future. Schools are where children spend half of

their day and the role of the institution in formation of society in general is extremely important.

The relationship between humans and nature plays an important role in modern world. Gooding (as cited in Milton, 2002, p. 96) speculates that humans have valued natural creations because they are in constant need to set their lives in greater context that they themselves created. Humans may need meaning to their lives and nature in its grandeur can help people find the right place for themselves; provide certain structure (Milton, 2002). However, it seems that with the rapid technological development humans find it more and more difficult to determine their role in nature and human intervention into natural processes becomes more and more evident and has a great impact on the natural environment.

There is now a growing tendency in many well-developed countries to attend more and more to the environmental problems in the world and people's awareness about the natural surroundings is increasing. It is quite evident that the amount of work put into conservation of the nature in any country is connected to the economic situation in it. The capitalist countries with poor economies see nature as a source for money and survival, while the people in wealthier countries may use nature for recreational purposes. Faarlund (1994, p. 21) sees this as a way to "release aggression" and suggests that in such cultures people view nature as their possession. This might be the case in the modern capitalist world; however, I believe that each country has deep and long traditions of interacting, caring and living with nature and in nature. These traditions that were carried out through many generations cannot be forgotten over the decades. People should learn the way to be reunited with nature in this fast-changing world and find what nature means for them and where their place is. And who are the best learners if not children?

2. Theoretical framework and literature review

The mainstream Western view on nature for many years has been seen in its exploitation (Milton, 2012; Hulmes, 2007, p. 93; Ingold, 2000, p. 312). People see nature as a commodity that serves for the purposes of humans. Industrial revolution had a great influence on that, and later capitalist system favoured the exploitation of nature for human wealth. Faarlund (2009, p. 6) mentions that according to the philosophy of Rene Descartes nature was of no value, if it was not exploited by the humans.

Well-developed western countries have now realized the serious implications industries and capitalist lifestyles have on nature and are shifting their focus onto sustainable development and are promoting recreational exploitation of nature more and more. However, Ukraine's governments have not made it the priority yet. Many natural resources and landscapes are abused and exploited to increase economic stability, personal wealth and prevent poverty. And it is done on various levels, starting from the governments, companies to ordinary citizens. Still in schools, mentions Barlit (2013), most of the books on protection of nature, concentrate on the usage of natural resources, rather than nature itself. It is possible to assume therefore that from childhood in schools children are not fully taught to appreciate nature on its own. Barlit (2013) has mentioned the importance of developing aesthetic perception in schoolchildren and pointed out that normally teachers are not ready or eager to do so. I believe that one of the reasons is the fact that both teachers and pupils in schools are disconnected from nature – they collide with it mostly through books.

Hulmes (2007) mentions that Norwegians “know, that one could alter nature, ultimately, one also needs to respect nature and through wisdom and “fornuft” (common sense), one was always at home in nature” (p. 94). In my opinion, it is something that is now being lost in Ukraine. Kushakova (2012) writes that a reason why the question of human relation to nature is so urgent in Ukraine lies in the system of our values. People use nature, but they do not feel as much connection with it as before. Norway relatively recently became a well-developed country, and maybe because it happened in a short period of time and the economic situation is rather secure in the country, people maintained a strong connection with nature. Faarlund (1994) mentions the value of the free-air-life in Norwegian culture over the past 140 years. It is expressed in the works of

famous writer, poets, composers, artists; even the Norwegian anthem mentions the beauty of Norwegian nature. “The Romantic movement struck a deep chord in the soul of Norwegians, and lead to revival of national identity – this is Norway, this free nature, and we are unique as Norwegians to have it” (Faarlund, 1994 , p. 24). The author claims that the people who became “urbanized” felt a necessity to reunite, rediscover the nature. In Ukraine, where economy is still developing, people tend to use all possible resources in order to improve their well-being and connection with nature is far from being a priority for them at the moment.

However memories of traditions of being in the nature still exist. Like every nation, Ukrainians have their history, culture and myths and nature comprises a big part of it. Ukrainian language is full of sayings about Earth, land, soil that claim how beautiful, rich and generous Ukrainian land is. In old times Ukrainians also had multiple traditional believes that used weather or natural phenomena to predict future. Some of them are still used in daily life. This traditional connection to nature is however being lost now. It is disturbing to see sometimes how people treat the landscapes they go to. While people exploit the nature, often they do not feel responsibility to take care of it even when they are in it, having impression that nature will take care of itself. I believe this is happens due to the lack of education and the fact that many people do not experience nature directly. Hulmes (2007, p.95) mentions that according to his observations Norwegians feel like they belong to nature, they feel at home there. I believe that it is missing with Ukrainian people in general – they do not feel like they belong to nature and are rather alien from it.

2.1 Human relationship with nature

Ingold (2000, p.41) in his anthropological approach to viewing nature distinguishes between nature as cultural construct and the actual “natural” nature. The latter is, according to the author, to be studied by natural scientists while the first one represents how people make sense of their environments that goes beyond the cultural and social surrounding (Ingold, 2000). Nature on its own does not constitute for anything, “the action of nature unfolds in the terms of culture” (Sahlins, 1976, p 209), it is the culture that assigns meaning to nature. Also, nature does not exist separately from human beings, and neither does the man-made “world” – “this is not a *new* environment – an

artificial environment distinct from the natural environment – but the same old environment modified by man” (Gibson, 1979, p. 130). However, cultural constructs and modern lifestyles do change the meaning nature bears for humans. Given example could be Norwegian culture, as I will mention below, which according to Faarlund (2009) has lived in nature for centuries. Norwegian philosopher Skirbekk (as cited in Reed & Rothenberg, 1993) wrote that “we must understand that we do not stand outside of nature as all-powerful engineers, but that we belong to nature, as a part of the whole” (p. 6). However recent technological and economical development has drastically changed the way majority see nature, as can be clear from the way it is portrayed in the school curriculum.

Bonnett (2004) outlines several main views on nature that were dominant at certain times of human history. The author mentions the treatment of “nature as mother”, which should be respected and treated carefully; the view of “nature as a machine”, which became wide-spread mainly during the Age of Enlightenment; and the romanticized view of “nature as a poem” (Bonnett, 2004). All these attitudes to nature over the centuries have obviously had impact on how modern societies view nature and how the concept of nature is defined nowadays. Based on the theory of Soper (as cited in Bonnett, 2004, p. 37) who offers three different classifications on how people see nature, Bonnett develops four different categories.

Soper (as cited in Bonnett, 2004) distinguishes the following categories: the ‘metaphysical’ (nature as independent of human activity); ‘causal’ or ‘realist’ (nature as the underlying causal material world); and ‘surface’, ‘lay’ or ‘empirical’ (nature as experienced sensually and emotionally, the nature that ‘we want to love and conserve’. (p. 37)

Bonnett (2004) develops four notions about nature: “nature as cosmic order, nature as wilderness, nature as innate essence and nature as the ‘hale’, arbiter of rightness” (p. 37). Clearly, people do not classify nature into these categories only, they may overlap depending on the places or natural environments people talk about. However, as mentioned before, in western societies the tendency has been to see nature from the “realist” perspective.

Attitudes of humans to nature are defined by many factors, however the assumption is that the knowledge we get about our surroundings is acquired through perception “and that perception is a skill which is learned rather than something that just happened to us” (Gibson, 1979; Neisser as cited in Milton, 2002, p. 42) and we perceive through everything - body, mind, senses and not only by some individual organs. “Perceptual skill is the foundation of all knowledge. It enables the perceiver to move around in the world, to understand language, to recognize others and to read their moods and intentions” (Milton, 2002, p. 43). Surely mental activity is also the part of a process, since it is through thinking that we can assign and elaborate multiple meanings to what we perceive (Milton, 2002, p. 43). The author (Milton, 2002) describes the process as a cycle that includes “anticipation, information pickup and modification of future anticipations” (p. 44) and this is applied to all types of experiences.

It can also be said that perception is to extent a cultural construct as well. Milton (2002, p. 48) suggests that our knowledge about the world is quite relational. We build our knowledge not only on direct interaction with the surrounding environment, but also by others presenting us information and we should individually decide what we choose to form our knowledge. And since the information and the experiences of the world are so different for every person it is difficult to make generalizations. However, I believe that there are larger patterns that influence our perception and they are different in different cultures. Therefore perspectives on nature in Ukraine and Norway will be overviewed further.

2.2 Relationship between children and nature

Children are especially sensitive to the concepts they learn about; what they familiarize themselves with during their childhood can have a deep effect on their lives in the future. There are plenty of factors that influence children’s worldview. Bonnett & Williams (1998) mention constant increasing influence of media upon children’s worldview and attitudes to the nature and environment in particular. Milton (2002, p. 68) writes about the great influence social setting has on children. The other people have a great influence on what we learn about the world and how we experience it. People are able in many cases to interpret the emotions and behaviours of other people

and in this way to learn how they should behave or react in certain situations and they are more likely to adopt the behaviour of those people who are the most important in their development (Milton, 2002, p. 69). One can imagine the importance of schools in these circumstances, where children spend most of their days for several years.

Kahn & Kellert (Kahn & Kellert, 2002, p. 119) distinguish three different types of children-nature relationship. The first one is the direct experience – when children are in the physical contact with nature and no human element is involved. The second, indirect experience – is when the physical interaction is carried with natural environment that is organized and managed by the humans. And finally the symbolic experience happens when there is no physical contact with nature. According to Kellert (Kahn & Kellert, 2002, p. 119) there is a decline in the physical children-nature interaction in the modern society and the symbolic experiences are more and more common, especially among children who live in urban areas.

The assumption that children nowadays are rather distant from nature is confirmed by several researchers. Bonnett & Williams (1998) made conclusion that children saw nature as “something set apart from the main business of life” (p. 170); Gurholt (2013) also mentions that children tend to change their perspective on nature. When they grow up they start seeing nature as something they “observe more than actually act upon or touch” (p. 16). Louv (2009) defines human disconnectedness to nature as “nature-deficit disorder” (p. 36) which can have negative implications on future generations and on children in particular. Migliarese (2008) gives various reasons why children are not as connected to nature nowadays as they used to be in the past. Among these are the use of modern technology, fear of the unfamiliar environment and dangers it may bring, doing sports activities, which are often thought of as “work” (p. 5), school educational policies. The alienated, resourceful presentation of nature in school curriculums is also mentioned by a Ukrainian researcher Kushakova (2012).

Marleu-Ponty (as cited in Romdenh-Romluc, 2011) when speaking about the phenomenology of perception, mentions that without the human body there could be no actual personal experience or interrelationships with the surrounding environment. If humans were deprived of all their senses and body functions they would not be able to experience world at all and there would not be even anything to think, question or

reflect about (Abram, 1996, p. 45). However, what he means by “body” is not just the physical body, but “the body as it actually experiences things, this poised and animate power that initiates all our projects and suffers all our passions” (as cited in Abram, 1996, p.45). Both factors, the physical perception and the “inner body” are necessary in order to build closer relationship with the surrounding environment. However, in order to be able to perceive something, you have to be perceived as well – we are being touched when we touch something, we are looked at when we look at someone; whatever we familiarize ourselves with should be looked at not as object, but as subject, such as ourselves (Abram, 1996, p.68). This idea may add to the perception of nature an attitude of “animism”, more as a subject-subject relation.

The idea of treating everything as a subject may seem quite unrealistic; this approach however may work positively with children. Nature as a perceived subject is quite unresponsive (Kahn & Kellert, 2002) and this triggers imagination, especially with children who may be new to learning and experiencing certain things. A child gets from the interaction with nature not only positive (such as wonder, joy, satisfaction) but also more unpleasant emotions, such as fear, anxiety. These only contribute to the personal development and maturation of a child (Kahn & Kellert, 2002, p. 128). People tend to attribute human and non-human characteristics to nature (Milton, 2002) and this may build closer or more distant relationship with nature. According to Yasvin (1995) the age of 10-13 years old is the most dominant for children to build relationship, take care and protect nature. At this age children are also most likely to perceive nature for what it is rather than seeing it as a source for their own existence. Kahn & Kellert (2002) also mention that the middle school is the time when children develop “humanistic, symbolic, aesthetic, and knowledge components of the scientific value” (p. 132) most rapidly. Children at the age 6-12 the authors claim (Kahn & Kellert, 2002) develop more affection to the nature, they become more comfortable and familiar with it. Shepard (as cited in Kahn & Kellert, 2002) claims that children “... are likely to venture into nonfamiliar natural settings, expanding their knowledge, sense of competence, and capacity to cope in these areas independent of adult supervision” (p. 133). Interacting with nature and experiencing its responses to their actions can build stronger relationship with nature, form more “positive” views and values which then will be carried into the adulthood.

2.3 Norwegian context. Friluftsliv

“Open-air-life” is the direct translation of a concept “friluftsliv”, a Scandinavian philosophy of living outdoors. Friluftsliv as a cultural phenomenon has two origins, according to Breivik (as cited in Gurholt, 2009 p. 56) – the tradition of harvesting and living from nature in Norway and the idea of Norway as a Northern playground, where the explorers and bourgeoisie saw nature in Norway as a place for adventure and aesthetic appreciation (Breivik, as cited in Gurholt, 2009).

Living in nature, learning and surviving in it were tasks of everyday life for peasants. According to Gurholt (2008a, p.1) the first trips outdoors for pleasure were mentioned in the 18th century and even already there it was used in an educational setting in some private schools. It was also the influence of Romantic Movement that encouraged people of upper-class to explore nature for recreational purposes (Gelter, 2000). The compromise between the urban and rural lifestyles was achieved, where Norwegian peasants with their strong connection to nature were idealized by the educated men of Romantic Movement who at the same time introduced the recreational purposes of going into nature to peasants (Tordsson, 2007).

Following the growth of the movement, tourist, skiing and scout organisations appeared in Norway (Gurholt, 2008a). It was also the authority of the famous Norwegian explorers that affirmed the Romantic views on nature and became models to follow among many young Norwegian men (Pedersen 2007; Gelter 2000). Nansen (as cited in Faarlund, 1994, p. 22) was contrasting friluftsliv to the tourism, which in his opinion was a “superficial” way to get acquainted with nature. It suggests that friluftsliv was viewed as a way to stay and live in nature rather than be a passer-by. With industrialization people became more and more disconnected from nature, and friluftsliv was a way to get home (Faarlund, 1994). Throughout the first part of the 20th century friluftsliv started to be practiced for leisure among the working class. It happened due to the growing popularity and position of the labour movement and party which demanded to change labour conditions and stop privatization of land, which gave freer access to nature (Gurholt, 2008a).

An interesting aspect on friluftsliv is presented by Gelter (2010). He distinguishes two types of friluftsliv – the genuine friluftsliv, which “provides a biological, social, aesthetic, spiritual and philosophical experience of closeness to a place, landscape, and the more-than-human world” (Gelter, 2010, p. 3). According to Dahle (2003), “Traditional friluftsliv is unorganized and is practiced in small local nature areas spread over the whole country” (p.250). The second, so-called “post-modern friluftsliv” (Gelter, 2010, p.3) according to the author became very much activity-oriented and not human-nature relationship oriented (Gelter, 2000, p. 81). The author (Gelter, 2000) says that friluftsliv “requires connectedness and participation”, it is not about “conquering or fighting nature” either (p. 81). Tordsson (2007) supports this, saying that challenges in Norwegian tradition of friluftsliv, may be searched for “as long as you have the skills that make it natural to do so” (p. 65). There should not be a practical or aesthetic reason to go into nature, or use it as a background for any kind of outdoor activity.

2.3.1 Friluftsliv in school system

Friluftsliv first appeared in school curriculums in the early 20th century as a part of PE for boys and the some outdoor activities which were adapted for girls in the 1920s (Gurholt, 2008a). In 1939 PE became a compulsory subject in the curriculum (Gurholt, 2008a). However, it was not until 1990s that friluftsliv became an obligatory part of the curriculum as a means not only to help children become more aware of the environmental changes but also as a way to “see friluftsliv as an important aspect of Norwegian everyday culture and national identity” (Gurholt, 2008a, p. 13). Tordsson (as cited in Aadland, Arnesen & Nerland, 2009) mentions that “a change of meaning occurs when a phenomenon that has been a part of the population’s leisure becomes component of academia or of a national curriculum” (p. 2). It was in 1997 when Friluftsliv was introduced in National School Curriculum (Gurholt, 2008). It could therefore be assumed that the concept of Friluftsliv and its perception is now being changed, especially in minds of children and the youth, who experience it as introduced in the formal educational setting. Aadland et al. (2009) mention that in the school curriculum Friluftsliv has become more goal and skill oriented, “leaving the aesthetic appreciation of features of nature, social learning and interdisciplinary understanding in the background” (p. 7). They express concern as what Friluftsliv will turn into when the world of outdoors faces the rules and borders of school classroom (Aadland et al.,

2009). However, according to Gurholt (2004, p. 15) in the study that was conducted in Norway in 2001 about the relationship teenagers have with nature, children that lived in the suburbs of Oslo mentioned in their essays that they feel connection to nature even though they are raised in an urban setting. Nowadays the youth does not see practice of Friluftsliv as preservation of their identity, but for them practicing Friluftsliv is more a way to stay active and healthy, and the concept may now include different kinds of outdoor activities rather than hiking or skiing (Gurholt, 2004, p. 21).

2.4 Ukrainian context. Role of nature in Ukraine: a brief historical overview

Similarly to other countries in the world, the strong connection of Ukrainians with nature can be found in the first settlements on its territory and is especially well reflected in pagan rituals and traditions that were mostly connected to the natural processes. Polovets (2006, p. 56) mentions three main archetypes that describe attitude of Ukrainians towards nature. Firstly nature was perceived as “mother” as long as in the 4th century BC and even now homeland is often referred to in a collocation “mother-Ukraine”. The other archetypes of nature were the trinity, the main pagan god Perun, and a portrayal of nature as a kind old man in old legends and tales. Ukrainians have also used natural processes to form knowledge about the world. As late as in the 19th century peasants would use knowledge about nature that they acquired from their ancestors to define the time, orient themselves, use it as measurement tools, predict weather conditions etc. (Polovets, 2006, p. 59).

Ukraine has quite a complicated history and many parts of it belong to different states at different point of time. Lozovy (2004) mentions that in the 19th century when all Ukraine was divided in between neighbouring states, one cultural characteristic was preserved without alteration and that was people’s love and respect for nature. Since most of population lived in villages the main industries at the time were directed at agriculture. The disconnection from nature began, as in other countries, with the development of heavy industries. Kononenko (2005) mentions that heavy industries and exploitation of resources were exhausting nature for economic benefit, which also led to the decline of people’s moral and value based attitude to nature.

There was also a strong tradition of valuing nature in Ukrainian culture and nature was among factors that formed Ukrainian identity. A famous Ukrainian scholar and philosopher Chyzhevsky (1992) pointed out that the nature of Ukraine contributed to the formation of main features of character in its people such as emotionality, sentimentality, high sensitivity and lyricism and also individualism and strive to freedom. The author mentions that flat Ukrainian steppes revealed forests, mountains and seas in all their majesty and also were a constant source of worry for the nomads. The importance of nature for Ukrainians is mentioned in poems, novels, works of famous writers, poets, philosophers throughout history. Kononenko (2005) points out the symbolical representations of nature are now portrayed in the state symbols of Ukraine. The Ukrainian flag is blue and yellow, where blue represents the blue sky and yellow – the rich Ukrainian wheat fields. The national coat of arms of Ukraine is trident – the connection to the trident that belonged to the above mentioned main god Perun and one may also connect it to the trinity. In traditional literature there are numerous sayings, beliefs, proverbs, fortune-tellings that would use nature as a source. The importance of flora can be found even in the most famous saying that “Without willow and guelder rose there is no Ukraine” where willow and guelder rose, the most common symbols of Ukraine, represent the origin of life, its continuity and beauty.

However this strong tradition has been recently expressed mainly in written forms, many of them are works of artists. The culture of treating nature as “mother” has lost its importance and priority. This can be seen not only on policy levels, but also suggested by several studies conducted in schools about which I will talk next.

2.4.1 Modern approaches to education about nature

As it was stated before one of the wide-spread attitudes to nature in Ukraine is that of seeing it as a resource. However, the formation of value-based and aesthetic perception and attitude towards nature has also been in focus. The idea of harmonious living between society and nature, principles of morality and value-based attitude to nature was mentioned by Vernadsky (1988) in his theory of “noosphere”, where nature and culture in his views is meant to constitute a single unity.

Aesthetic attitude to nature is characterised by the ability not to see and value nature for the utilities it provides and in this way feel closer connection to nature (Kushakova, 2012). Similar attitude was suggested by a famous Ukrainian pedagogue Sukhomlynsky (1985), who believed that forming caring and loving attitude to nature will contribute to the harmonious development of a child. The path to reach it is through active engagement with nature, through interacting with animals, learning about plants, natural processes.

Kondratenko (2005) offers a structure of aesthetic perception of environment, and nature in particular: emotional-aesthetical, cognitive, axiological, and practical components. The aesthetic perception finds its form in emotional component; cognitive component helps to identify aesthetical objects; axiological determines the value of the objects and all of the mentioned components stimulate practical and creative activity of a person. The influences of art forms on an aesthetic perception of nature are expressed by Pavlenko (2002) – art is believed to consolidate the aesthetic perception children learn about from observing nature, interacting with it. Kondratenko (2005) offers to create the so-called “aesthetical situations” in order to develop emotional response towards nature in student. These situations will cause and favour the development of positive feeling and therefore associations with nature.

The connection between aesthetic perception of nature and the moral norms are mentioned by Barlit (2013). In this way the pragmatic tendencies towards the perception of nature can be avoided. Nature can then be protected and preserved for its own sake, not by achieving some economical or other benefits. Similar view is shared by Kushakova (2012) who claims that with value-oriented attitude towards nature there is a balance between “sensible” use of nature and spiritual interaction with it. In education, nature should be presented more as an object for spiritual needs (Kotlyarchuk, 2012).

2.5 Research questions

Based on the above mentioned assumptions and research interests, the following questions were seen as central to the current project:

What are the similarities and differences in children's attitudes to nature in Norway and Ukraine as seen through school setting?

What are the main similarities and differences in the approach to education about nature in both countries?

What are the possible effects of the curriculum design and educational objectives on the way children experience and form attitudes to nature in schools?

3. Research and methodology

3.1 Research method

For the given Master thesis a qualitative approach to generating data was chosen. Qualitative methods of research are used when certain interpretations of social phenomena is made (Malterud, 2001, p. 483). The research questions are based on interpretation of the data which was collected in a written form.

The research is aimed to analyse and compare the pupils' perspectives on nature in both countries and their relation to educational objectives. Since the study will concentrate on pupils' perspective in one public school in each country, comparative educational research will be applied in order to help understand the influences school education can make on children's perspective of natural environments. Coding has been chosen as the most appropriate and useful method to explore the most relevant to research data.

3.1.2 Description of the context

For the research project one school was selected in each country. The data collection was made in a primary school in Oslo, Norway; and, according to the difference in educational systems, one secondary school in Lviv, Ukraine. One class of the sixth grade pupils was selected in each school.

Lviv, the fifth largest city in Ukraine with population of more than 700.000 people and Oslo, the largest city in Norway, with population of more than 600.000 inhabitants were selected because of personal relation and interest reasons. Also, the cities have a number of similar characteristics in terms of availability of green areas offered for recreation. Two schools that were selected for the research are located in the city centre areas, with relatively difficult access to natural areas. The schools with difficult access to natural areas were chosen on purpose since taking into consideration the fact that most of schools in Lviv would be located in the urban areas. The two chosen schools are public.

3.2 Comparative education research

Educational policy documents in both countries were selected and analysed. This refers primarily to the curricula in both countries and the policy documents that outline the main principles and objectives of education in Norway and Ukraine. Bray, Adamson & Mason (2007) mention that policy documents cannot be analysed without providing the context. The phenomena under comparison should “have sufficient in common to make analysis of their differences meaningful” (Bray as cited in Bray et. al., 2007, p. 88). Attention should be paid not only to the similarities and differences, but also look into the background of why these phenomena developed in a certain way. For this reason a brief description of economic, political situation of both countries is mentioned throughout the paper and the historical overview of the concept of nature in two countries as well as overview of modern approaches towards education about nature was made.

The research was conducted on two levels – national policy level where I aimed at analyzing the main educational objectives and how the concept of nature is projected to the pupils in the policy documents; and pupil level, where I aimed to find out if the educational objectives have any relevance to how students view nature through their experiences in school setting.

The Norwegian national policy documents that were analysed included the following: *Core curriculum for primary, secondary and adult education in Norway; Curriculum for physical education; Natural science subject curriculum, Social Studies Curriculum.*

The policy documents analysed and studied for the purposes of the given research from Ukraine: *The state standard for the primary education; The state standard for the basic and complete secondary education; Curriculum of Natural Science subject for 1-4 forms of the primary educational institutions; Curriculum of Natural Science subject for 5-6 forms of the secondary educational institutions* designed by the Ministry of Education of Ukraine. To avoid confusion between different versions of *The state standard* that are starting to be implemented, I based my analysis on the documents that are fully effective at the moment of research.

When overviewing the policy documents the coding was used to identify similar or different concepts. Four main fields were identified: the main principles of education about nature, the main concepts used in studies, the objectives and methods/approaches to education.

3.3 Data collection and analysis

The data was collected in forms of written tasks where students had to describe their experiences during an outdoor outing to nature they had with school:

Describe one of the outdoor outings or trips into nature that you had with your school or class.

Here are some guideline questions and the reasons why they were asked:

- Why have you chosen to describe this trip? Was there anything memorable or special about it? - *to find out why particular contexts and natural setting are more interesting for children to reflect upon;*
- What was the place you visited like? Please describe the landscape you were in as detailed as possible – *to find out what kind of natural environment children are willing to describe;*
- How did the place you were in make you feel? – *to find out children's feelings and emotions in the mentioned natural environment*
- What was the weather like? - *to find out what kind of natural environment children are willing to describe; to find out possible influences on general impressions about the trip;*
- What kind of activities were you involved in during the trip? Did you enjoy them? Why? – *to find out what kind of activities children find special, interesting or memorable to talk about when describing outing in the nature;*
- Did you learn anything during the trip? If so, what and how? (For example by observing the nature, by doing some practical work, playing; from a friend, teacher or other people) – *to find out possible learning outcomes of a trip as seen by children;*
- What were your overall feelings about the trip? Did you like it? Were you enjoying being out? Why? – *to find out the overall impressions children had about being in nature and reasons for that.*

A written text allows for the data to be more naturally occurring rather than answers to questions asked directly by a researcher (Silverman, 2013). Therefore, written essays may provide more honest view or opinion on the issue rather than students trying to give the “correct” answer to a researcher and it eliminated the language barrier I would have in oral communication with children. This I believe would have led to misunderstanding and misinterpretation of the data in Norwegian, as the help of interpreter for both questions and answers would be needed and the essence of some meanings could have been lost. Therefore, each pupil received a sheet with the task and the points they should mention about in their essays. Children in Norway had possibility to write their essays in Norwegian, student in Ukraine wrote them in Ukrainian. Mother tongue was chosen for the written task as pupils can express themselves better. Also, it was more beneficial for me as a researcher whose reading skills in Norwegian are much better than the oral ones. There was no word limit of the essay and students could choose how much they were willing to write, although the dimension of questions implied quite a detailed and extensive essay. The average length of an essay was one A4 page. There were no restrictions as to when described trip happened or where it was to, the pupils could decide what to write about on their own. This was done intentionally, as one of my aims was to see how pupils interpret concepts and questions mentioned in the task.

After collection, the pupils’ essays were read and transcribed, since the coding method I used for the research is easiest done when data is processed (Gibbs, 2009) and the relevant to the research questions information was selected. Codes are seen as words or phrases that are used to assign “a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based... data” (Saldana, 2013, p. 3). They help to reveal the meaning hidden in the data. Codes were assigned to certain words and phrases to be able to conduct analysis and interpret the meaning they have (Miles & Huberman, 1994, p. 56). First, the phrases and words that were used to describe nature or natural phenomenon were marked blue; then the description of the outdoor experiences students mentioned were marked in green. Finally, the learning outcomes (if any) that students mentioned were marked in the yellow. These will constitute for the, as Gibbs (2009) mentions, the “parent” codes, which are the most generalized ones. Saltana (2013, p. 175) suggests that codes should be divided into themes therefore the

data then was organized according to the three main themes. Subcoding then was applied to the following themes in order to elicit more meaningful for research information. Descriptive, Emotion and Value coding (Saldana, 2013, p. 105) then were chosen to apply for all three themes as the most relevant for the current research. In Descriptive coding I aimed to look for connotations of concept “nature” for children; in Emotive - what kind of emotions participants could recall from being in the nature; Value coding – to “reflect participant’s values, attitudes and beliefs” towards the main subject (Santana, 2013, p. 110). All the subcodes were applied to the mother codes. The connections were then made between the codes using pattern coding (Miles & Huberman, 1994) and similar meaningful codes were grouped in order to generalize data for further analysis. This process was done separately for the data from two countries. Then the coded patterns were used for analysis, their relation to the theoretical framework and the research questions were tried to be answered.

Sample of pupils’ responses can be found in Appendices 4 and 5.

3.4 Sample

As mentioned above, the focus of the research is on the children. In each school a class of the sixth grade students was selected. In both countries students are about 11-13 years old. The choice of the sixth grades was intentional because of the curricula they follow In Ukraine and Norway, which seemed to me as more relevant and similar to each other to be able to compare the two. Each class has approximately 20 students in it; the classes are mixed gender wise. Educational objectives and school curricula are aimed at all children equally, without gender considerations and gender differences were not in focus in this research.

3.5 Ethical considerations

The data collection, management and analysis were made in accordance to the ethical guidelines in Norway and Ukraine. Since the ethical consideration should be clearly explained to the focus group (Ritchie & Lewis, 2004) the school administration, teachers, parents and children were informed about the purposes of the research and at all times their identities are being concealed. All possible identification information was removed from the final draft and all the data will have been destroyed by the project’s

final deadline. The data collection was made under supervision of the pedagogues. The Ethical Guidelines can be found in Appendix 1.

3.6 Limitations of the study

The current research is based on study of policy documents and pupils' essays, however to gain a deeper understanding of the pupils' perspectives it could be helpful to use additional research methods, such as personal interviews with students, observations during the field trips to understand the contexts of the described natural places better. The main limitation of conducting in-depth interviews with respondents is the oral foreign language skills. For this reason written tasks were considered more appropriate as they do not limit researcher or respondents to the same extent.

3.7 Validity and reliability

The validity of the research is demonstrated in the sample, data, methods chosen to analyse the data and theoretical framework the research is based upon. Qualitative data is perfectly suitable for "locating the meanings" people place on certain phenomenon, to find out their "perceptions, assumptions, and presuppositions" (van Manen as cited in Miles & Huberman, 1994, p. 10). Written tasks allow children to express themselves in their native language, which can help avoiding language barrier and translation misunderstandings between the pupils and the interviewer. Guideline questions allow students to elaborate on their thoughts but at the same time do not force students answer them if they do not want to mention any information, unlike it is with interview. Comparative education research was done on the level of national policies and curricula with the general historical background on the topic of discussion given. The relevant to research data was identified using coding and then analysed and compared.

The sample was selected from a school in each country. The similarities between the two contexts made it a reliable source for comparison on current issue. The schools were selected in large cities with similar population. Both cities have a lot of green spaces in and around the city area; both schools are public, located in central areas with

no easy access to nature. The age of children was about 11-13 years old in both contexts. Both, boys and girls were included in the research.

The researcher's background is also taken into consideration. Having experience of working shortly as a teacher in schools and also being a youth leader in Scout organization, I could personally experience the different attitude children had to nature based on whether they were directly interacting with it or not. Later, being a TEOS Master student in Norway and having learned much and experienced Norwegian friluftsliv gave me a different perspective on education. Knowledge and experience of the two cultural contexts helps to be more objective on the issue.

4. Results

4.1 Norway

4.1.2 Norwegian policy documents and educational objectives

The Core Curriculum

The main aims stated in the Core Curriculum mention (Norwegian Board of Education, 2005) the development of people in the areas such as morality, creativity, working capabilities, learning for life, collaboration, environmental awareness. The main areas through which the core curriculum aims are implemented in Norway include: “the importance of how national heritage prepares for life in society; the need for ecological understanding; personal development of both cooperation and the basis of individual, independent action; and the development of mental and physical abilities” (Whillis, 2013, p. 32). Having included these areas the Core Curriculum has provided quite a broad field of personal development through educational system on all levels. The educational perspectives on natural environment are shown in “The environmentally-aware human being” chapter (Norwegian Board of Education, 2005, p.35). The curriculum defines some main principles which would help to educate a mindful generation with awareness of human-habitat relationship and importance of sustainable life (Norwegian Board of Education, 2005, p. 36). Nature is ascribed great importance as an environment in which people live and are inevitably depend on but also as a refuge place for mind and soul, a place human beings are connected to (Whillis, 2013, p. 33).

The overview of the main objectives of school curriculum subjects in Norway can be found in Appendix 2 (Whillis, 2013, p. 79).

Physical education subject curriculum

Curriculum for Physical education in Norwegian primary school (forms 5-7) is divided into two parts, with physical activities comprising one part of it, and outdoor life the other. Among the main objectives of the subject are not only the development of physical strength and healthy lifestyle, but also the development as social being (Whillis, 2013 p. 79). A lot of emphasis is put upon cherishing the Norwegian and Sami traditions of friluftsliv and the way nature is treated through them

(Utdanningsdirektoret, 2012). This is achieved through some basic competencies children should learn, which practical skills used for survival in nature (Whillis, 2013, p. 79). It resonates with the Core Curriculum principles, where “Education must corroborate the connection between understanding nature and experiencing nature” (Norwegian Board of Education, 2005, p. 38).

Natural science subject curriculum

In Natural Science curriculum emphasis is made on the place human beings have in natural system, and especially the consequences of technological developments on the natural world. A strong emphasis is made upon learning about sustainable life and development (Whillis, 2013, p.79). This is implemented through practical activities such as carrying out projects in natural environments, learning how to use certain natural resources and also demonstrate awareness of technological influence on the environment worldwide (Utdanningsdirektoret, 2012). In this subject knowledge about local traditions also plays important role and pupils must be able to demonstrate knowledge of local usage of natural resources.

Social studies

The consequences of human activities on the world are also considered in the Social Science classes (Utdanningsdirektoret, 2012). Throughout this subject pupils are to understand the connection between the natural and man-made settings; what influence our lifestyles have on the natural world; how can one realize himself as an active member of society and have influence on his ambience. The subjects concentrates more on the theoretical side of the issues and competencies students need to acquire are based mostly on their understanding of the issues and objectives given (Whillis, 2013, p. 80).

4.1.3 Participants’ perspectives

Overall, 20 pupils participated in the research which resulted in 20 collected essays. One child misunderstood the task and wrote about a family trip. His essay was therefore excluded from the analysis. All children except for one wrote the essays in Norwegian. Among the places that pupils chose to describe were: trip to a lake (7), a forest in Bygdøy peninsula in Oslo (5), a park in the city (3), a ski trip in a forest (1), a forest (3).

The places pupils visited were written in many essays with assumptions that the reader knows what the place is like. Students concentrated more on the description of the activities and the experiences they were involved in rather than description of the landscape or nature. In eight essays students briefly described the place they were in: “Near water there was an open space with a lot of forest”; “There were a lot of trees and animals and it was beautiful”, “Nice place with both water and trees”, “...small pond with moss... and stones around”, “...it was just raining so the leaves and grass had raindrops on them and the hill was wet..... the path was full of puddles ”; “There were many trees and a hill from which everyone rolled. ... there was a lot of snow that laid on the hill”; “it was the forest we could see”. Three children decided to describe their trips to a city park: “... is a park with many statues and fountains”; “there were many beautiful statues. ... It is the largest statue I’ve seen!”.

The weather conditions were described in all but one essay: “The weather was very nice, the sun was shining, there were no clouds on the sky”; “It was a little wet and it was raining a bit, but the weather became better after a while”; “the sun was shining, it was very warm”. While most pupils said they enjoyed the trip during “good” and sunny weather, it does not seem that they connected positive experience to “nice” weather. However, cold and unpleasant weather did influence some experiences in a negative way:; “I felt terrible” (because of rain and cold), “It wasn’t as fun as I hoped” (because it was snowing all the time), “the trip was lousy“ (because of rain and cold), “it was raining so it was boring to walk in the forest”. However two children mentioned they enjoyed the trip although the weather was not very favourable: “it was a good trip, except for the weather”, ““The weather wasn’t as nice as I predicted. There was a lot of rain and clouds. ...the weather was not so good, but the stories were great”.

Ten students mentioned different natural forms, vegetation or animals they encountered when they were in nature. The encounters were connected because of their observation or activities students were involved in: “We used them (magnifying glass) to capture ants .. so we could see them”; “It was very easy to find insects and ants because it had been raining”, “Frog was completely green with brown spots. ... Many wanted to see it and many wanted to hold it”; “I saw approximately 50 ants that were climbing a dead squirrel”; “it was fun to see many different animals in the nature and I remember many

of them. I remember very well seeing an ant that was carrying some food”; “there was a squirrel who was running where we put our bags”. Some students described quite detail their interaction with animals: “I saw it (a spider) and it saw me..... the eight black eyes (of a spider) were looking at me”, “frog was completely green with brown spots”. Three of the students described animals giving them human-like characteristics: “(frog) swam *happily* from the place”; “Some insects were a little *nasty*”; “I saw a squirrel who I *called Frans*”.

The social interaction was mentioned as quite important in the essays. Fourteen children mentioned different group activities they were involved in in nature. Among those were different games played with each other or with adults, sitting near campfire and eating sausages (“some were playing game of tag... while the others sat near the fire and ate sausages”; “after we grilled sausages and marshmallows I went to look for tadpoles”), sports (football), activities organised by teacher (“We also got tasks on a sheet of paper and we had to measure how high a tree was...”; “the activities were both funny and exciting”; “we had tasks we had to do and it was funny”), climbing a tree (“it was a tiring day after the whole class had been climbing a tree”), balancing on a rope (“It was fun to balance and sometimes fall”). Two children mentioned that it was “nice to be with friends”; one child mentioned ‘... teacher was sitting on a stone ice cold and wet. I had a little coffee so I shared with *name* (the teacher), then he became happy”.. All of the children who mentioned these activities said they enjoyed taking part in them.

Six children described their feelings and emotions they felt during the trip. A child mentioned that “... I felt so free and creative” in nature, that “I liked to be outside the whole day instead of sitting in and do nothing when it’s snowing”; another child wrote that in nature “I felt... that I could do everything”; “I felt free and happy”. One child mentioned how the encounter with a spider seemed “rather beautiful in a ... mystical way”; and another said that “It was especially fun when we found unusual animals”. Social interaction was also mentioned to stimulate positive emotions: “Everyone else was happy and that made me happy too”; “everyone was very creative (in doing activity together)”. While no activity was described in a negative way: “I was getting bored (from not finding any insects)”.

Among learning outcomes the practical and physical skills were mentioned: "... we learned how to orient ourselves with the help of nature and compass"; "I learnt about orientation"; "I learned how a man could measure with a stick how high a tree was and how far away from the tree something was"; "I learned how to balance better". Also, some children learned about nature: "I learned how an ant carried food and stuff and it was very interesting"; "We worked in groups and we learned about insects and nature and it was very educative (lærerikt)". Pupils also mentioned that they learned about some historical facts during their excursion: "I learned a lot about 1814 through stories and performances"; "I learned how Norway became an independent country and has laws like all other (countries)"; "I learned a bit about 1814 and other things". Also, learning from the social interaction was mentioned: "... I learned that if a man is going to do something funny, he must have someone else to do it with"; "I thought for the first time that it doesn't help to sit and do nothing, you have to be with the others".

4.2 Ukraine

4.2.1 Ukrainian policy documents and educational objectives

Among the main objectives of school education outlined in *The Ukrainian State Standards* (Ministerstvo Osvity i Nauky Ukrainy, 2000; 2004) of the school education are the following: the all-round personal development on the basis of human and national values, scientific and systematic knowledge, its value for the social growth of a person, democratic school education and mutual respect between the nations; at the same time the education is aimed at establishing knowledge about Ukraine, which is provided by learning Ukrainian language, literature, history and geography.

It is important to note that the National school curriculum in Ukraine consists of two parts – the so-called invariable part and a variable. The invariable part of the curriculum is to be followed by all the institutions that provide basic and secondary education, and the variable part is to be formed by the institution itself. According to the *State Standard* (Ministerstvo Osvity i Nauky Ukrainy, 2004) the invariable part comprises 67%, and variable 33% of total school hours for all the subjects. It is therefore clear that the curriculum is quite strongly regulated by the policy documents and leaves not much room for school to adapt it according to their own needs.

In the *State standard for primary education* (Ministerstvo Osvity i Nauky Ukrainy, 2000) one of the key areas that would teach pupils about the world is *Human being and the world*. Interestingly, although nature is mentioned very briefly in it, all the qualities that pupils are expected to learn concern their development as social beings, their interaction with their social environment.

The overview of the main objectives of the subjects Natural Science and Physical Education can be found in the Appendix 3.

Natural science subject curriculum

For the purpose of this research I will overview the curriculum for Natural science subject for the 5-6th forms of a primary and secondary state school. The main objective of the subject is to form the competency of pupils in the subject through mastering integrated knowledge about nature and human being, the basis of ecology, the development of value-oriented attitude to the nature (Ministerstvo Osvity i Nauky Ukrainy, 2005). The main subject of study – nature – is viewed as an integral systematic object; that determines the content of the course and methods of teaching and learning (Ministerstvo Osvity i Nauky Ukrainy, 2005). The pupils are expected to form the general picture of natural processes and place of human beings in them, their influences on nature; relationship between living and non-living elements. Pupils are to be able to carry out observation of nature, experiments and analyse the results. The documents also mention the development of “positive emotion-value attitude to nature” and desire to act in nature according to the ecological norms of behaviour. It is also expected that pupils will be using their knowledge about nature in everyday life to save the environment, be able to adapt to the living conditions in a certain area and evaluate the levels of safety of the local environment. According to the curriculum approved by the Ministry of education (Ministerstvo Osvity i Nauky Ukrainy, 2005) the common amount of academic hours spent weekly on the subject is 2; overall number of academic hours in a year reaches 68-70, from which only 3 to 5 are planned for extra-curricular activities outside of classroom, such as excursions, pupils’ projects, work with additional resources. However teacher is free to change the number of hours expected for each theme during the course. In the 6th grade National curriculum (Ministerstvo Osvity i Nauky Ukrainy, 2005), only one excursion a year is officially provided, and the mentioned “practical work” often includes research in books, atlases, maps etc.

While there are some activities foreseen where children have to make a contact with nature or observe it, most of the lesson activities described in Ukrainian National curriculum provide program outline that is based on learning within school walls, using visuals and experiments inside a classroom. Therefore nature in the curriculum of Natural Science subject is viewed as an object that needs to be studied, analysed, examined, experimented on, observed and also treated according to ethical, aesthetical and moral guidelines of society. It is mentioned a few times that some natural objects, such as animals, plants are studied with the help of visual aids rather than realia. One of the objectives of the course (Ministerstvo Osvity i Nauky Ukrainy, 2005) is to develop the value-based relationship between children and the environment, which seems rather challenging considering that children do not interact much with the natural environment they live in in school setting. It is mentioned in the curriculum that it is important to use modern technology in classes in order to present information and that it is reasonable to organize excursions or trips, however there are few options as to what, when and how to carry out the journeys outside a classroom.

Physical Education subject curriculum

The main objective of the subject physical education in the National curriculum (Ministry of Education, Youth and Sport, 2012) is to form a strong motivation in students to care for their health, physical form; harmonious development of natural abilities and mental capacities; the use of physical education methods in healthy lifestyle. The main objectives are being realized through the activities that form the general knowledge about physical development and its role in life; broaden experience of physical activity among students and functions of their body and organism; form a habit in students to do physical activities on their own.

As in Natural Science subject, physical education subject has a variable and non-variable part (Ministry of Education, Youth and Sport, 2012). Interestingly, any specialist can develop their own program for the variable part, which can include basically any kind of sport, but it has to be approved by the Ministry of Education and published for general use. It is stated in the program that “the number of variable modules should increase with time” (Ministry of Education, Youth and Sport, 2012). This leaves very little freedom to the professionals and schools to vary the curriculum, since the amount of responsibility and bureaucratic procedures make it more difficult

for teachers and school to implement certain types of physical activities that might be suitable for teacher's skills or school location for example. It is stated in the curriculum outline that it is expedient to carry out most of PE lessons outdoors (Ministry of Education, Youth and Sport, 2012), which in practice implies mostly school or local stadiums. The program consists of the theoretical part, where students should be able to demonstrate general knowledge about physical activities and physical development; and the practical part that involves practical physical activities.

4.2.2 Participants' perspectives

There were 23 children who took part in the research and therefore there were 23 essays collected. Most of the children chose the following places they visited to describe: an open air museum in Lviv (8 children) and a monastery in the forest (8 children). Among other places that were mentioned were: trips to zoo (2 times), castle and farm (1), mountains (1). Three children misunderstood the task and wrote about trips they made with their families or friends. Their essays therefore were not included into analysis. It was mentioned by a few pupils that the trips they went to took place during the holidays and not on the school days. They were therefore organized as extra-curricular activities.

When talking about places that children chose to describe, most of them were described in generalisations: "the place was beautiful", "... it was very nice and beautiful". In more than half of the essays the man-made environment was mentioned rather than nature or along with nature. When describing places most children mentioned "houses of more than 100 years old", "an old school", "a beautiful wooden church", "a monastery" with only six children mentioning that they also saw animals, plants or other natural phenomenon: "We saw many bugs", "And there were mushrooms!", "there was a cold spring". Students who visited monastery did describe the environment around them: "Everything reminded me like I was in a fairy tale where everything is in harmony with nature"; "There were a lot of trees and mountains"; "A spring was hidden in between the mountains", "the place was mountainous, with very many trees", however they also mentioned human factor, describing the monastery or the caves "in which the first founders of the monastery lived". It is also interesting to mention that children describe the hills of about 250m high as mountains.

Good experience and perception of beauty Ukrainian children often connect with the weather. The descriptions of weather are present in more than half of essays. Quite a few children mentioned that "...we were lucky on that day and the weather was hot and sunny"; "the fortune smiled to us and the weather became better" or "...and the most important thing – there was no rain". None of the children, who described bad weather conditions (rain, cold) wrote that they enjoyed the place or the trip. Also the weather description was rather precise: "The sun was playing with different colours, beauty and that's it", "... the sun wouldn't go off the sky, the wind was covering us tenderly"; "When we came it was cold, there was dew. Then the sun gave warmth, it got warmer. When we were leaving it got colder".

The encounters with animals and discovery of some plants were presented as memorable by eight children. A few described quite in details the animals they saw, what they looked like and what they were doing: "... (lemur) stuck its tongue out in a funny way", "(animal) was sitting like it was doing yoga". Two children wrote about what they learnt about some plants, mushrooms in particular: "it was the first time I saw a mushroom in a forest" or "now I know what mushrooms I can eat and what I can't eat".

As for the experiences children had, the social factor was mentioned quite a few times. Children wrote that: "Trips like these make us closer and we become friendlier to each other"; "even the driver could see what a close bound class we are", "I had fun times with my friends during this trip". Only one child said: "I went because they made me in school... it was boring that's why I was listening to the headphones" (i.e. music). Children mention such activities as football, volleyball and "games" when they were on the trips. One child mentioned making fire and "we even grilled sausages. my friend burnt a sausage" which suggests how unusual the experience was for her.

It is worth mentioning that children do write how they liked the trip and the place: "It was really cool, nice, fun", "I have the best impressions after it", "The trip was very interesting", or describe their physical state: "I got very tired walking and my legs were in pain...", "When I reached it (*the top of the mountain*) I just fell down and was lying on the ground", they however do not really mention directly their emotions or feelings.

Only one child mentioned: “I wasn’t comfortable”, but none of other essays said what the environment made children feel like, what associations or emotions it stimulated.

As for the direct mentioned learning outcomes of the trip, two children mentioned that they learnt how to orient themselves with the map (brochure-tourist map); one child mentioned what she learnt about mushrooms, one child mentioned the social skills - she learnt “how to trust friends more”; one child said she did not learn anything and the rest mentioned the information they learnt during excursions, like historical facts.

It is important to mention that two children mentioned they learned how to “save and protect the nature”. However in one case this response was quite distinct from the context of their essays, which suggests that pupils only tried to give the answer that is expected of them rather than what they really learned.

5. Discussion and findings

5.1 Comparison of nature as seen in educational policy documents

To gain a better understanding of different perspectives on natural environments among pupils in Norway and Ukraine, the differences and similarities between the educational approaches should be identified as well, which was the purpose of one of the research questions. As it was mentioned above, both countries had strong traditions of connection to nature throughout their histories. However, different development in economic and political terms over the past decades had its impact on the way nature is regarded nowadays. It is obvious therefore that educational priorities in those countries are not the same. Although the core objectives of the education about nature in Norway and Ukraine are similar, there are some considerable differences in the manner students should learn about nature and certain ideas students should form about nature. The nature or natural environment mentioned in policy documents in both countries in the following similar approaches:

- Nature seen as a single unit with humans having their place in it.

In both contexts humans are said to have certain place in natural environments and one of the main educational objectives according to the policies is for pupils to learn what place humans have in the natural world.

- Nature seen as a resource for human lifestyles and activities and should be preserved.

Nature is recognised for the rich resources it provides for humans and they should not only be used but also preserved for the future.

- Responsibility every human being bears for the natural environment should be well understood and accepted.

In curriculum and policy documents in both countries it is mentioned that human activities do have a great impact on the world surrounding them. Pupils should be able to realize the consequences of people's actions and learn to act in nature and use nature adequately.

- Interconnectedness with other species

Human beings are not regarded as a superior species on the planet and are seen through the connection between other species and natural environments.

- Nature to be admired and enjoyed

In both contexts nature is meant to be appreciated for its beauty; pupils should learn to find pleasure in nature.

The differences in educational approaches can be identified as following:

- Direct experiences in nature.

One of the most important aspects of Norwegian curriculum is that nature is expected to be experienced by students directly. “Education should enkindle a sense of joy in physical activity and nature’s grandeur”; it should encourage exploring new places, enjoying outdoors, finding new paths and destinations (Norwegian Board of Education, 2005, p. 38). The curriculum makes an emphasis that the balance between “understanding nature and experiencing nature” (Norwegian Board of Education, 2005, 2005, p. 38) should be found. The Core Curriculum mentions that students should be able to learn to enjoy the outdoors (Norwegian Board of Education, 2005, p. 38), being in the nature has to contribute to personal well-being. Physical Education subject in Norway aims to teach students to appreciate visits into nature and learn how to behave in nature, based on local traditions.

Physical Education subject in Ukraine, however, focuses on physical, health and partly mental well-being of students through exercises and games (Ministry of Education, Youth and Sport, 2012); there is no such area as outdoor life provided. Although Ukrainian Nature Science subject curriculum says that understanding of nature as the ideal of harmony and perfection is one of the objectives, it is not well realized through practical experiences, given few numbers of hours dedicated to excursion or trips during the school year. Therefore practical skills such as orienteering are learnt in Social Science subjects in more theoretical way and other skills such as how to survive and live in nature are not foreseen.

- Nature as a way to establish one’s identity.

Probably because of the strong tradition of friluftsliv, the importance of learning local and Sami traditions in the outdoors is emphasized a few times in policy documents in Norway. Nature is not seen as a way to reconnect with one’s identity in the Ukrainian policy documents and specific subjects curricula. Nature is expected to be learned about

in general terms of human-nature relationship with little to none references to local and national traditions or national identity.

- Value-based approach to nature

In Ukrainian policy documents a value-based approach towards nature encompasses not only seeing nature as a resource for human survival that needs to be protected, but also the emotional-aesthetical attitude towards nature, harmonious interaction with nature and ability to interact ecologically reasonably with the environment. While Norwegian policy documents imply that nature should be preserved and its resources used wisely, the notion “value” is referred in relation to religion and humanism, which talk about values in social life (Norwegian Board of Education, 2005, 2005), and in Physical Education curriculum, children are expected to “see value of *visiting* natural environments” (Ministry of Education, Youth and Sport, 2012) which implies the personal values for visiting outdoors, not valuing the natural environments itself.

- Sustainability

The Norwegian Core Curriculum clearly mentions that “interplay between economy, ecology and technology must make unique demands, scientific and ethical...if we are to ensure sustainable development” (Norwegian Board of Education, 2005, p.36) and therefore “Knowledge of, understanding of and experiences in nature can strengthen the will to protect natural resources, preserve biological diversity and contribute to sustainable development” (p. 36). Although the subject itself is fully implemented in high school, the primary school already familiarize students with the concept.

The concept of sustainable development or sustainability is not currently mentioned in Ukrainian curriculum, although the objectives of nature protection are present in it. This contrasts with the Norwegian Core Curriculum (Norwegian Board of Education, 2005), which mentions the local traditions, but also the importance of international cooperation in sustainable development. Ukraine as a developing country that has been in economic and political crisis for years only started creating program of sustainable development in 2012 and does not yet implement sustainable development as a priority in education.

5.2 Comparison of pupils' perspectives on nature

A few themes and patterns appearing in pupils' essays were found to be of relevance and importance to the main question of this thesis – the children's perspectives on nature in Norway and Ukraine. Among the three general codes and subcodes these were the patterns that identify the best, in my opinion, the pupils attitudes to nature: choice and description of “natural” places; social interaction during stays in nature; expectations and anticipation versus the reality of experiences in nature; human and non-human characteristics of nature; feelings and emotions children experience while being outside; learning outcomes mentioned by students.

Natural places

One of the most distinct characteristics that demonstrate children's attitude to natural environment is what they actually choose to see as “natural environment” in two countries. Gurholt (2014, p. 15) when overviewing personal narratives mentions, that the Norwegian youth mostly sees nature “... as “the nature”, which corresponds with what Ingold (2000, p. 41) terms “the really natural nature” as opposed to culturally constituted concepts of nature”. (Ingold, 2000; Gurholt, 2013, p. 15). This claim can generally be confirmed by most of the given works of Norwegian children. However, the choice of “natural” places that are made by Ukrainian children when they describe a natural environment they have been to is quite different. Ukrainian pupils' essays suggest that any school trip that involves travelling outside the city or school to a place that has some green areas is considered by children as going into “nature”. At the same time nature is viewed more as a background for other places they visit (a museum, castle, and monastery). Majority of sampled Ukrainian children connect natural spaces to the man-made environments while majority of sampled Norwegian children choose to describe “the nature”, without man-made intervention.

Social interactions in nature

One of the important aspects mentioned by the pupils about their experiences in nature was their interaction with the others. In both contexts the social circle enhanced children's experiences in nature. According to Milton (2002, p. 69) psychologists claim that the emotions and experiences are stronger when they happen in social setting, that is to say when other people are present during your experience. This is particularly

important for schools, as most of experiences children share in a group and therefore the impressions, memories, emotions or feelings they may any experience may stimulate will be more intense. This is confirmed in both Ukrainian and Norwegian children's essays, when children mention how pleasing it was for them to be with friends and bond with them during their trips to nature. It is possible to claim that activities children were involved in with others in nature were more memorable for them rather than experiences they had on their own. Being in nature with other children, doing different activities with them or even just communicating with each other did create stronger emotional feedback as expressed in essays than the activities children were doing on their own.

Anticipations and expectation versus the reality of experiences in nature

Children's attitudes to natural environments can be traced in the way they react to it, which expresses their (even subconscious) expectations of the environment and experiences. Every time a person is about to visit a natural sight, he has certain anticipations even if he is not consciously intending to expect anything from the environment. Anticipation and the seen may differ much and surprise us, but only because we unconsciously anticipated it to be different. Whitehouse (as cited in Milton, 2002, p. 65) writes that surprise happens when "our perceptions do not match our anticipations". Children also have certain anticipation when they encounter nature. What may distinguish them from adults is their sense of curiosity, their imagination and different kinds of experiences that they encountered. It is confirmed by some Norwegian essays, where children had quite high expectations of certain trips which were not met by their perception. The weather was the main reason for disappointment. However, some still expressed enjoyment based on the activities they were involved in, information they received or social circle they were in which turned out to be interesting for them.

Ukrainian pupils in contrast did not mention anything directly about their expectations for the trips, however the tone of some essays suggests that they were quite surprised by their experiences, mostly in a positive way. The anticipations students have may tell about the overall perception and attitude to being in the nature. The fact that children in Norway expressed surprise, disappointment more often than Ukrainian may suggest that they do have higher expectations of their encounters with nature based on previous

experiences. At the same time all but one of Ukrainian pupils indirectly mentioned their satisfaction or excessive satisfaction with their trips into nature, which suggests that they do not have high expectations based on the previous experiences.

Human and non-human characteristics of the nature

Another feature that can demonstrate how people relate to nature is identifying it with humans. Milton (2002) suggests that people attribute to nature human and non-human characteristics. Animals are often prescribed human names, types of character or human behaviour; nature is described as our mother. In essays from both, Ukraine and Norway, children do prescribe human characteristics to the living nature. Overall, it can be said that sampled children from both countries do relate to the living (or animal) world more than to the non-living nature. This is proved in essays in which children mentioned giving names to animals or attributed to them human appearances or movements. In these cases children responded and saw nature as a “subject” (Abram, 1996), which can interact with them and it demonstrates affection children have to nature notwithstanding the cultural background. Science in general terms sees natural objects as non-human. The problem for people is to choose how they want to see certain natural environment (Milton, 2002, p. 53). If people choose to see nature as a living being, they may feel more related to it; feel like they belong with nature. However if they choose to see particular natural environment as a non-human object, as a something to research, learn about, use, owe it but not necessarily live in it can create a sense of alienation to nature. Of course the choice is never one-sided, but I believe it can be especially perplexing for children, who are in a process of acquiring knowledge about their world and may struggle to find the right for them balance between the two socially created types of nature. Interaction with creatures that could respond or react to children’s behaviour did stimulate stronger response in both cases rather than the interaction with non-living nature. However, the scales of interaction with the non-living nature are different in both cultures. Quite a few of sampled Norwegian children interacted with non-living nature in learning activities, while most of Ukrainian pupils rarely mentioned non-living nature which suggests that it was of no interest to them and therefore did not stimulate much of emotional or any other kind of response. More on this will be mentioned further in the learning outcomes sections.

Feelings and emotional response to natural environments

Emotional response children produce from being in nature demonstrates to a great degree their attitudes. Both, positive and negative emotions can stimulate learning process (Kahn & Kellert, 2002) and influence future experience of the phenomenon. Emotions can also stimulate learning process. Lazarus (as cited in Milton, 2002, p. 65) mentions that emotions are strongly connected to cognition, and that they follow the process of acquiring information and later they affect how people acquire knowledge. Lazarus (as cited in Milton, 2002, p. 65) named this process appraisal, “which he sees as a continuing evaluation of objects and situations encountered” and Milton (2002, p. 65) refers to as “perception”. Almost all children in both contexts described their experiences with affection, which suggests that the perception of their outdoor experiences and nature was rather positive. However, perception is conscious as well as subconscious process. Some of the Norwegian children directly mentioned the feelings and emotions they had while being outdoors a few times (free, creative, and empowered) and it suggests that children do feel curious about nature and do admit that they enjoy learning and exploring it through direct experiences. A child admits that he “didn’t feel that creative anymore” after a small accident, and it demonstrates that he recognizes the feelings and emotions nature may give him, and realizing them he may want to come back to nature more, to get this feeling again. Children are natural explorers of any environment they are in and it is important in education. Nature should be presented to children in a way, that they evaluate it mainly as interesting, positive and safe environment. It is important that children appraise it as something that gives them mainly pleasure and that they do not try to avoid it in the future. Milton (2002, p. 66) writes that emotions help us to learn about the world as they may stimulate to acquire more information and the whole process become a cycle, which can move in both directions. While, as it was mentioned, being in the nature affected Ukrainian children in a positive way, none of them mentions their feelings or emotions directly. This suggests that they do not reflect on their experiences and they may not be as conscious of how nature actually affects them.

Learning outcomes

Milton (2002, p. 63) describes a short study he made on natural conservationists who he asked to give reasons for their love for nature. A vast majority of them answered that they enjoyed nature so much because of the direct experiences that they had with it.

“Implicit in their statements is that they had to come to love nature in the process of learning about nature, by discovering what nature is like” (Milton, 2002, p. 64). Learning about nature is important but the way we learn about it may have a strong influence on our attitude towards it. Norwegian children according to the pupils’ perspectives, use nature as a learning setting a lot more often than Ukrainian children. Why the reasons for this may vary (teacher’s influences, subjects curricula) the fact is that Norwegian children do perceive natural spaces as spaces to learn in and from more than Ukrainian children. It is possible that Ukrainian children are not being motivated or guided enough in order to do that.

Another important difference in learning outcomes is that few of Ukrainian children did mention protection of nature as their learning outcome, while none of the Norwegian children talked about it. And while the context of the essays suggests that it is not what Ukrainian children actually learnt from the trip, it does mean that they recognize what is expected of them to learn during their stays in nature. Norwegian children mentioned nothing about preservation of nature; however the description of their activities (a few children mentioned returning the animals and insects to the places they took them from) suggests that they do small actions that demonstrate protective attitude towards nature as a part of their routine.

5.3 Students’ perspectives in relation to educational objectives

5.3.1 Norwegian context

Before answering the third research question and discussing possible effects of curriculum design and educational objectives set by the policies on the way children see nature, it is important to discuss how pupils’ perspectives relate to them. The overview and analysis of the essays demonstrated that children’s perspectives correspond to certain educational objectives of the Norwegian policy documents.

Faarlund (2007, p. 58) defines joy as the “driving force of friluftsliv according to Norwegian tradition”. Faarlund (2007) warns against the complexity of this concept and on the contrary, narrowing joy to a modern notion of “fun” (Faarlund, 2007, p. 59) which would simplify the meaning of concept in traditional friluftsliv. “The joy of

nature” is also mentioned in the Core Curriculum (Norwegian Board of Education, 2005) as one of the main attributes to being out in the nature. Education, it says “must enkindle a sense of joy” (Norwegian Board of Education, 2005, p. 38) in being physically active; it “should... induce pleasures in outdoor life”. Although the notions of “joy” as defined in traditional friluftsliv and modern education may be different, it is obvious that most of the children, based on the essays, do receive pleasure from being in the outdoors in their own ways. It can be proved by the words they use to describe their feelings. Some mention their experiences as “fun”, “nice”, “glad” or “happy”. The others specify that they felt “free”, “creative” and empowered. The fact that most of the children chose positive for them experiences also means that they associate nature with positive emotions rather than negative ones and it demonstrates that they do appreciate their stays in nature. This corresponds to the other educational aim mentioned in the Core Curriculum and PE curriculum, where children are expected to value the trips to nature.

Various authors (Tordsson, 2007; Gelter, 2010; Dahle, 2003; Gurholt, 2004; Aadland, 2009) mention that current experiences of friluftsliv are changing. The so-called fast and intensive, risky activities are gaining popularity as opposed to the slow peak friluftsliv experiences as defined by Gelter (2010). This is not however confirmed in the researched educational setting. The reflections pupils made about their trips say that none of the children mention risky or adrenalin-seeking activities they were involved in or tried to be involved in. While of course it is possible that children were involved in games or activities that seemed risky for them, the fact that none of them mentioned it suggests that probably they did not seem of enough importance or relevance to the children to mention.

Judging by the activities that children were involved in and the learning outcomes mentioned by them, children are in process of acquiring certain skills and knowledge mentioned in the curriculum for Physical Education and Natural sciences, such as orienteering; use of natural resources according to local traditions; learning about plants and animals. Gelter (2007, p. 44) writes that friluftsliv’s goal in formal education “...has often become that of outdoor education with its focus on mastering different outdoor activities, but rarely on the deeper philosophical mission of Genuine Friluftsliv”. Aadland et. al. (2009) also mentions that the concept of friluftsliv is adopting new meanings in the context of education. This can be confirmed in the

Physical Education subject curriculum, which does define certain skills and activities children have to master while being outdoors. The fulfilment of the curriculum can be noticed in the description of activities made during school outings. The activities are often goal oriented to meet the curriculum objectives. That is why children mentioned learning about orienteering, different animals and insects, how to use natural objects to do measurements. However this is the school system that defines the goals and it seems to me that children have slightly different perspective. What Aadland et. al. (2009) write about friluftsliv, which is not done barely for pleasure anymore, but gained a multitude of important goals, seems a little exaggerating to me. While friluftsliv has adopted several other connotations distinct from the traditional views, what lies in the core of it is still a pleasure of staying outdoors and it is mainly for pleasure that people, and children in particular come back to it, no matter what goals the educational system puts. It can be found in the essays children write about their outdoor experiences. During their essays children do not focus as much on the actual learning outcomes. Children are much more excited to tell about their observations and interaction with natural environments rather than specify what they learn exactly. The interaction with nature seems to stimulate more response than the goal of doing it. It is therefore the process that matters more for them. So while school excursions do suit the category of “post-modern friluftsliv” defined by Gelter (2007, p. 39), it is not the fact that the children perceive it in the same way as school system does. Based on the essays, children do not question reasons to go into nature. They are made to go there with school in any case and it seems that their focus is not on “why was I in nature?” but more on “why did I like it?”, “why did I remember being in nature?”.

Another important connection that can be made to the educational objectives is the well-being of children. The Core Curriculum (Norwegian Board of Education, 2005) objectives imply that being “environmentally-aware human being” contributes greatly to students’ well-being. As mentioned before, a vast majority of children had positive emotions and feelings from their outings, which of course suggest the positive state children were in during or after the trip. One of the main factors for that, besides being in nature and involvement in different activities, was the social interaction. The fact that children said that being in a company of friends made them happy, that they learned to appreciate their friends, got to know them better corresponds with the fact that children are expected to learn about their identities and place in society (their group in this case)

through physical activity culture in the outdoors (Utdanningsdirektoret, 2012). Although children did describe many experiences they had on their own during the trips, friluftsliv in an educational setting seems to encompass a lot of shared experiences. In this way friluftsliv in education does fulfil the criteria of “genuine friluftsliv”; according to Gelter (2000, p. 83) it “recreates the tribal life with the same security of belonging to an independent group” that is now being lost in modern society, where people become more and more independent (Quinn as cited in Gelter, 2000, p. 83). In educational setting of course friluftsliv is not a voluntary choice of connection for groups. Groups are formed in spite of it, but friluftsliv is the reason for building stronger relationship inside a group. Children mention that these interpersonal bonds also bring them joy and happiness. And since they do recognize it now, it is likely to be a tradition they take with them into the future – friluftsliv as a way to reconnect with the others, not only oneself and nature.

5.3.2 Ukrainian context

Children’s perspectives on natural environments in Ukraine, based on the analysis of the essays, do have certain discrepancies and similarities between the actual educational objectives stated in policy documents.

The choice of “natural” environments chosen for description is quite interesting. Based on the fact that more than half of children mention man-made environment over or along with natural one, it can be assumed that children have little experience of encountering different kinds of natural environments in school setting or that such encounters were of no special interest to them. Natural setting does not seem to be the focus of school trips, it rather the background for visiting other sites, in this case monastery, open air museum, zoo, farm, castle. It is therefore understandable why many children do not focus on nature either. Barlit (2007, p. 2) mentions that “Ukrainian mentality traditionally includes respecting, honouring, endearment and even divinizing of plants, flowers, trees”, however system and methodologies produced do not foresee supporting these traditions in practice. Kondratenko (2005), Barlit (2013), Kushakova (2012) mention the lack of methodologies in different aspects of educating children about nature.

Kushakova (2012) mentions that there are certain challenges in the educational system that includes ecological education of the pupils. Among those she mentions big discrepancy between the high demands towards the ecological culture in society and the actual level of it; the potential that extracurricular activities have in value-based education in relation to nature and the lack of methodologies for its implementation. According to the author's research (Kushakova, 2012) only "traditional" extracurricular activities, which are almost always theoretical and not-systematical, are used at schools. At the same time Kushakova (2012) mentions the importance of going into nature in forms of excursions, trips to the recreational places during extracurricular activities. When children perceive nature as a background for man-made world in the first place, it is difficult to talk about fulfilling such educational objective of understanding nature as an ideal of harmony and perfection; form understanding of the unity of nature and find own place in it, as stated in the policy documents (Ministry of Education, youth and sport of Ukraine, 2012). While a teacher's perspective plays an important role, it is also the system that directs the teachers. My personal experience includes going on similar trips to the same locations when I was at school, and years later the traditions and perspectives have not changed at all, although the schools, time and people are different. This supports the idea that it is not about individuals, but rather the system that forms and influences views.

Another important educational objective that can be overviewed on the basis of the essays is that of seeing nature in emotion and value approach. Pupils' descriptions of the environments demonstrate that many children show aesthetic attitude towards nature. According to pupils' writing, they manage to appreciate the beauty of natural environments in general, although fewer of them notice details around them. The natural environment they encountered stimulated positive emotional response in almost all the students. Kondratenko (2005) mentions that if knowledge that pupils have about the world is not expanding in scientific and natural contexts together with aesthetical appreciation, it is impossible for a student to create a system of values, ideals and beliefs. Milton (2002) also mentions that in researching of what value is the anthropologists, psychologists have been mainly concentrating on the cognitive side to explain it, rather than explaining the emotional one. Barlit (2007) mentions that there are three components to the "love to nature": aesthetical, intellectual and ethical.

Children do demonstrate admiration for the landscapes they are in, animals they encounter. However, the children's value-based attitude to nature is more questionable. Milton (2002, p. 100) writes, that people become acquainted with the environment when they receive some kind of meaning from it, and that usually require our engagement with it.

Milton (2002) says that: We value things by perceiving meanings in them. These meanings become known to us through the emotions they induce, which we then experience as feelings. In other words, meanings literally "make themselves felt", and in doing so they make themselves known. Thus the process of valuing things in the world is inseparable from the emotions and feelings they induce in us; without these emotions and feelings there would be no value. (p. 100)

As mentioned above, children do show more active engagement with nature mostly when it responds to them, or they are provided with some meaning. So children write quite enthusiastically about their interaction with animals, or how they saw and learned something about mushrooms in a forest. However, it seems that Ukrainian children do not pick up deeper meaning from nature on their own or at least do not consider important mentioning it. This can be proved by the fact that children mention man-made environment more frequently than they mention natural environment, regardless of what they consider to be nature.

However, the traits of value-based approach are present in few essays. The fact that two children mentioned that they learned to protect nature, although in one case the statement was very different from the actual content of the essays, means that they have idea of what is expected from them during the trips outside the classroom. Important aspect to mention here is that they also mention that they learned to protect nature "because it plays an important part in human life" and "I learned to protect nature, it is so beautiful!". Barlit (2007) writes that in Ukrainian textbooks the focus is mostly on protecting natural resources rather than nature; that the pragmatical use of nature is in focus. However, the fact that children do not really mention this and that they do receive positive emotional feedback from being outside, suggests that perhaps children originally tend to appreciate nature for what it is rather than what it represents in school policies and textbooks.

5.4 Possible influences of policies on the pupils' perspectives of nature

Educational policies, as the core documents that define the direction of the education are strongly influenced by the history, traditions, political systems, interests and values of a state. While policies are defined by the society they can also influence society through education. Based on that, they should definitely include the positive world practices in different spheres to ensure the successful development of educational systems, especially in modern fast-paced world where changes occur rapidly.

As it was shown above, policies in Ukraine and Norway have somewhat different approaches to education about nature and pupils' perspectives had their differences as well. Although the formation of children's attitudes to nature is influenced by many factors, school is where they spend most of their time and where they generate vast amount of their knowledge about the world. Teachers play very important role in this process; however teachers also have obligation to follow the curriculum and core policy documents in their work. If the curriculum does not define certain objectives the chances are low they will be achieved.

Beames and Ross (2010, p. 95) with reference to various sources mention that learning process should be related to the actual world pupils live in rather than constructed world of a school classroom. The design of Norwegian curriculum allows for more freedom to the schools and teachers than a Ukrainian one, which describes the progress in much detail, leaving little chance for improvisation and adaptation to the location of a school, or pupils' needs.

Another important feature that possibly influences the perspectives of pupils is more theoretical than practical approach of Ukrainian policies than Norwegian ones. Kellert (2002, p. 128) mentions that "A worrisome feature of contemporary society is that many children increasingly experience nature through imagined and exotic rather than through the actual and local". This can be noticed in the design of a school curriculum in Ukraine, where nature is learnt largely through the books and images; also there is quite often little emphasis on the local environment in the program. Children often learn about the far and unusual for them environments and are not fully aware of the natural characteristics of their own places (Bonnett & Williams, 1998). While Norwegian

curriculum quite often emphasizes learning about local traditions (e.g. Sami traditions), Ukrainian policy documents do not encompass local traditions to full extent, and neither do they follow the most modern international practices (e.g. sustainable development). This may have negative influence on pupils who feel distant from local natural environments and at the same time may not realize themselves to be a part of the world and international community.

It is also important to think about implications that this aspect of school education may have on children in the future. Kahn & Kellert (2002, p. 126) mentions that the memories of interacting with nature in the childhood “become a legacy carried out into adulthood”. “Delight, elation, and affective engagement appear to form a crucible in which the child and later adult shape and mold an inclination for creativity and discovery.” (Kahn & Kellert, 2002, p. 127). Therefore schools as educational institutions must carry out activities that would encourage students to interact with nature directly, especially in the modern days where virtual life starts to prevail over the physical contact with anything. And the most effective way to ensure this is done is to implement changes on the national level.

6. Conclusion

The aim of this thesis was to find out what are the perspectives that children in Norway and Ukraine have on nature when they encounter it in educational settings; how these perspectives are similar or different and how they relate to the educational objectives defined on the national levels. The research topic was chosen based on my professional and personal interests and experiences of working with children in different countries and cultural settings, in Ukraine and Norway in particular.

The literature relevant to the topic was selected and overviewed which created a theoretical framework for the research. Nature was the central concept around which the literature review was made; among the other ones reviewed were the concept of children-nature relationship, friluftsliv, and current approaches to education about nature in Ukraine.

Since the research was focusing on the pupils' perspectives, one class of the sixth grade pupils was chosen as a sample from a public school in Lviv, Ukraine and another class from a public school in Oslo, Norway. The qualitative research was chosen to generate data, which was collected in form of the written tasks that pupils made. Comparative Education Research was also done on the national level by analyzing and comparing national educational policy documents and subject curriculum between the two countries. Short description of the contexts of the two countries was done in the literature review and methodology.

The answer to the first research question "What are the similarities and differences in children's attitudes to nature in Norway and Ukraine as seen through school setting?" can be summarized in the following way: the connection of children to nature can be seen through emotional expression and aesthetical perception of natural environments in both cultural contexts. Norwegian children express the emotions and feelings they had in nature more directly than the Ukrainian ones. In both contexts children see the living nature as subject and respond eagerly to it, while the interaction with non-living nature depends on the activities children are involved in. Norwegian children more often perceive nature for what it is than Ukrainian pupils, for whom the nature more often happens to be a background of man-made environment. The social factor is very

valuable to pupils and enhances the experiences children have in nature in both countries.

The second research question “What are the main similarities and differences in the approach to education about nature in both countries?” can be answered in this way: in both educational contexts nature is seen as a single unit that plays important role in our lives and humans are to take responsibility for the actions that influence natural environments. Human beings are claimed to be seen in connection to other species and natural environments which are also meant to be admired and enjoyed for their own sake and for personal well-being of people. In the Norwegian approach, however, an important emphasis is made upon experiencing nature directly, on learning and acquiring certain skills from being outdoors. In addition to this nature is seen as a factor that influences the formation of national identity, which is not present in the Ukrainian approach. In connection to this, Norwegian educational system aims to preserve the local tradition of treating nature (such as Sami traditions), as well as implementing the newest international practices (such as sustainable development). Ukrainian educational policies, as based on the content of the documents, do not currently prioritize implementing modern international practices or preserving local traditions in schools. The emphasis in Ukrainian policy documents is made on valuing the nature for its resources and beauty; nature should stimulate a positive emotional and aesthetical response, encourage pupils to interact ecologically reasonably with it.

The answer to third research question: “What are the possible effects of the curriculum design and educational objectives on the way children can experience and form attitudes to nature in schools?” can be defined as following: national policies set the direction which educational institutions are expected to follow. The levels in between, i. e. institutions themselves, their staff and teachers play enormous part in forming knowledge of pupils, however, schools and teachers are expected to follow the national curriculum and to fulfill its objectives. Therefore the objectives set in national policies as well as means of achieving them should be considered very carefully, taking into account many factors. In the Norwegian education setting, where being outdoors in nature is valued, children have multiple different experiences, which include different places they go to, different seasons they stay outdoors, variety of activities they involve in. It seems that in a school setting Ukrainian children’s experiences are limited to

certain places for which nature is only a background; to certain seasons or weather and to activities where they are often spectators rather than participants.

Another important implication of national curriculum and program is the development of methodology. It is more difficult for teachers to start changing their approaches when there is no methodology to build upon. And the good methodologies will not be developed if there is no demand for them. This is why policies are so important – for the major change to happen, the core policies should be changed, which will result in creating demand for new methodologies and new ways of teaching.

The fears in the Norwegian academic discourse are that the tradition of friluftsliv may lose its genuine purposes and origins in the educational setting. The challenge for Ukraine is the opposite, to bring the lost traditions of relating to nature back through the educational system. While the objectives set by the Norwegian curriculum are criticized for turning friluftsliv into outdoor education as practiced in other countries, setting similar goals may be the inducement for Ukrainian society to find “their way home to nature” by educating the youngest generation.

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8. Appendices

8.1 Appendix 1: Ethical Considerations

- 1) All the participants were informed about the study and the data collecting process
- 2) The parents , teachers and children gave consent to participate in the research
- 3) The original works produced by pupils will be destroyed by the project's end date
- 4) The transcribed data will be stored on the password protected computer
- 5) All the participants remain anonymous and all the possible identifications of the schools, teachers or students were removed from the final draft
- 6) The participants can have access to the research and its findings

8.2 Appendix 2: Norwegian National Curriculum Subject Overview

Note. From *A cross-cultural comparison of 'place' as seen in Adventure Learning Schools (UK) and Den Naturlige Skolesekken (Norway)* p. 79, by Whillis, E. (2013). Oslo: Norwegian School of Sport Sciences.

Subject	Aspect	Instance	
Physical Education (2012)	Objectives	Physical activity is important for everyone as this fosters good health	
		Outdoor life is part of how we establish our identity in society and what we have in common	
		Physical use of the body to enhance individual sensing, experiencing, learning and creating	
		Develop versatility and learn to value exercise and visiting to nature	
	Main subjects	Competence and skills needed to do things safely in nature and see the value of visiting natural environments.	
		Attention must be paid to local outdoor traditions, using the local environment and how to orient and conduct oneself in nature during the different seasons.	
	Competencies	Use orienteering maps and compass in a familiar terrain	
		Describe local traditions in outdoor life	
		Plan and carry out an overnight stay in the outdoors	
		Practise some activities with roots in Sami traditions	
	Natural Science	Objectives Subject area	The need to find answers to questions about... or place in nature and the universe
			Research and new knowledge in natural science and technology have great importance for societal development and the environment in which we live.
Knowledge on, understanding of and experiences in nature can strengthen the will to protect natural resources, preserve biological diversity and contribute to sustainable development			
Attain knowledge and from attitudes that will give them a considered view of the interaction between nature, individuals, technology, society and research			
Requirements for sustainable development, the place of man in nature, and how human activities have changed and continue to change the natural environment locally and globally.			
Competencies		Plan and carry out studies in some nature areas in	

		cooperation with others
		Use of some plant, mushroom and animal species according to some traditions, including Sami traditions
		Elaborate on the use of some sources of energy in earlier times and in contemporary times, and describe consequences for the environment, locally and globally
Social Studies	Objectives	An understanding of the relation between nature and man-made environments.
		The relation between production and consumption and evaluations of the consequences that resource use and living one's life have on the environment and sustainable development
		As a reflecting individual, each one of us can shape ourselves as a person. As a political individual, a person can influence his or her surroundings. As a moral individual, a person is responsible for the consequences of his or her actions.
	Subject area	Location and extent of natural and man-made conditions on earth.
	Competencies	Narratives to show how people think and act based on the community they are living in
		Register and sort traces left by the ice age in the place where he or she lives
		Explain relations between natural resources, industry, settlements and living conditions
		Explain how production and consumption can destroy ecosystems and pollute the soil, water and air, and discuss and elaborate on how this might be prevented and repaired

8.3 Appendix 3: Ukrainian National Curriculum. Subjects

Subject	Aspect	Content
Natural science (2005)	Objectives and principles	Form understanding about unity of nature and place of humans in it
		Development of emotion and value oriented attitude to pupils' environment based on knowledge about nature
		Development of the sense of responsibility towards nature conservation
		Understanding of nature as the ideal of harmony and perfection
	Main concepts	Human being as a part of nature, inhabitant of the planet Earth
		Human habitat
		Natural phenomena
		Interconnectedness of nature components, their organisation
		Significance of knowledge about nature for human beings
	Competencies	Name: main natural and eco-systems, man-made systems and technologies, components of nature; place of human beings in nature
		Give examples: main technology and devices that are used to study about nature and use natural resources for energy); of local eco-systems, types of landscapes, living organisms
		Make conclusions: about connection between humans and biosphere; role of man-made device in life; importance of natural components in life; nature as a whole
		Compare: processes of vital functions between plants and animals

		Observe and describe: main natural processes and characteristics; important energy technological functions
		Follows the rules: of nature protection; use of experimental devices
Physical education	Objectives	Development of strong motivation to lead a healthy lifestyle by doing physical activities
		Harmonious development of healthy mind in a healthy body
		To form strong motivation to maintain good health, physical form and development
	Tasks	General knowledge about physical education
		Variety of physical activities and body movements
		Enhancement of brain activity through physical exercises
		Value-based approach to physical exercises as one of the main factors of healthy lifestyle
		Independent exercising
	Competencies	Basic line training
		Have general understanding about physical education
		Pupils can perform general exercises to develop their physical abilities

8.4 Appendix 4: Ukrainian pupils' responses (sample)

	Ukrainian	English
Description of nature/place/nat. phenomenon	неймовірно гарний краєвид	Unbelievably beautiful view
	мали змогу побачити багатьох різних та смішних тваринок	We could see a lot of different and funny animals
	... смішно висунув свій довжелезний язичок	...(animal) stuck its tongue out in a funny way
	(лемур) сидів, немов займався йогою	(lemur) was sitting like it was doing yoga
	чудовими враженнями	Wonderful impressions
	і побачили орляток	And saw young eagles
	А навколо краса-цвірінькають пташки, все зелене, світле. Весна	And the beauty was around – birds were chirping, everything was green, bright. Spring
	Сонечко вигравало різними кольорами, краса та й годі :)	The sun was playing with different colours, beauty and that's it :)
	Занурилися в ліс, а там грибочки	We plunged into the forest and there were mushrooms
Activities/Experiences	звірі смерділи	The animals stank
	Бджоли живуть в вуликах	Bees live in beehive
	... білки, які ... не бояться людей	Squirrels... are not afraid of people
	В загороді – кози і маленькі поні. На ... ставку – дикі качки і лебідь	Behind the fence – goats and small ponies. On... the pond – wild ducks and a swan
	Багато дерев і гір	Many trees and mountains
	Одне джерело було сховане між горами	One spring was hidden in between the mountains
	Було холоднувато, була роса. Пізніше пригріло сонце, потеплішало	It was fresh (cool), there was dew. Later sun warmed up, it became warmer
	Вперше в житті зустріла гриби в лісі... так-так, смішно, але факт	First time in my life I saw mushrooms in the forest... yes-yes, it is funny but a fact
	Взялися хизуватися вміннями у футбол-волейбол	We started bragging about our football-volleyball skills
	але я дуже змучилась ходити і мене боліли ноги	But I got very tired walking and my legs were in pain
	Я поїхала тому що мене заставили в школі	I went because they made me in school
	Мій однокласник всівся в коров'ячу ляпку	My classmate sat into cow's poo
... мені нічого не сподобалося.	... I didn't like anything. It was not	

	Комфортно не було	comfortable.
	Найцікавіше було на галявині де є кузня	The most interesting was on a glade where there was blacksmith's shop
	Коли притуляєш руки, то відчуваєш тепло і енергію, яку виділяють ці маленькі комашки	When you lean your hands, you can sense the warmth and energy these little insects give
	Печера, по якій я лазив	Cave which I explored
	Було дуже весело, радісно	It was very funny, joyfully
	Весь час я провів з друзями, спілкувався з ними	All the time I spent with friends, talked to them
	Ми дуже багато ходили по сходах, по горах	We were walking a lot on stairs, mountains
Learning outcomes	Побачили і почули багато цікавого про життя, звичаї наших предків	We saw and heard a lot of interesting things about life, traditions of our ancestors
	Я навчився більше довіряти друзям	I learned to trust friends more

8.5 Appendix 5: Norwegian pupils' responses (sample)

	<i>Norwegian</i>	<i>English</i>
Description of nature or a place	Jeg så ekorn som jeg kalte Frans	I saw a squirrel who I called Frans
	Det var mange trær of dyr der og det var fint	There were a lot of trees and animals and it was nice
	Insekter var litt ekle	Some insects were a little nasty
	De (forstørrelsesglass) brukte vi til å fange maur ... at vi kunne se på de	We used them (magnifying glass) to capture ants .. so we could see them
	Nede ved vannet det var åpen plass med mye skog. Det var benker der og en do..	Below water there was an open space with a lot of forest. There were benches and a toilet..
	Jeg så omtrent femti maur som klarte et dødt ekorn	I saw approximately 50 ants who were climbing dead squirrel
	Været var veldig fint, sola skinte, det var ingen skyer på himmelen	Weather was very nice, the sun was shining, there were no clouds on the sky.
	(frosken) var helt grønn med brune prikker	(frog) was completely green with brown spots
	En lite vann med mose.. og steiner rundt	Small pond with moss... and stones around
	(frosken) svømte lykkelig av sted	(frog) swam happily from the place
	Experiences/Activities	Alle lekte hele tiden
Jeg var med på... å spille football og løse oppgaver rundt omkring i skogen		I joined... playing football and solving tasks around the forest
Jeg likte turen veldig godt		I like the trip very much
Var det ganske fint		It was very good
Det var morsomme og spennende aktiviteter		There were funny and exciting activities
Noen lekte		Someone played
Det var morsomt å se på mange forskjellige dyr		It was fun to see many different animals
Jeg så en maur som barte på noe mat		I saw an ant which was carrying some food
Det (turen) var veldig morsomt		It (trip) was very funny
Vi gjorde... oppgaver i skogen		We did... tasks in the forest
(Turen) var spennende og ... morsom		(the trip) was exciting and funny.
Jeg likte å være ut		I liked to be outside (weather and nice nature)
Learning outcomes	Vi lærte om hvordan man skulle orientere seg ved hjelp av nature og kompass	We learnt how person can orient himself with the help of nature and compass
	Jeg lærte mye ting av aktivitetene	I learnt many thing from activities
	Lærte om insekter og natur	Learnt about insects and nature
	Lærte om historien	Leaned about history
	Jeg lærte noe nytt	I learnt something new (about insects)