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Local Community Based Outdoor Activities through Integrating Subjects in Social Studies for Sustainability

Master in Outdoor Environmental Education and Outdoor Life

Thesis 15 ECTS

LIU-IKK-MOE-D--07/002--SE

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This study is designed to know contribution of local community based outdoor activities for education for sustainability. 7 teachers from Sweden and 7 teachers from Korea got involved in this study and they chose and conducted one activity from the 17 activities that I offered. After they had done the activity with their upper 13 years old students, they completed questionnaire about the conditions of class, the reason of their choice, advantages/disadvantages of the activities and the actual obstacle they had in schools to have outdoor class through open-ended questions. They also were asked to answer level of integrating subjects in social studies by Likert scale, offered opinions about relevancy to sustainability with principles and analyzed the activity with 4 ways of knowing. These three questions are asked to know the contribution of the activities for education for sustainability. This research offers comparison of teachers’ opinion and educational condition from two countries when having the activities and how the activities are conducive to education for sustainability. In addition, it provides 17 activities which can be useful to social studies teachers who are interested in local community based outdoor activity.
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CHAPTER I. LITERATURE REVIEW

Through examining literature, I want to demonstrate why the local community based outdoor activities through integrating subjects in social studies are required for sustainability. At first, 1) in terms of the aim and contents of the social studies, the importance of social studies will be explained, and then 2) the significance of integrating subjects in social studies for sustainable development will be suggested, 3) necessity of outdoor education will be asserted and at last 4) significance of Community based outdoor activities will be presented.

1. INTRODUCTION

Ken Collins gives a good account of distorted perception of social phenomena like follow:

Japan will actually make a profit from the earthquake: 5500 people were killed, 33,000 were injured and the bill for damage has already exceeded US$ 110 billion. However, the income generated by the rescue and clean up efforts means that calculation based on GDP show a slightly positive result on balance for the ‘well-being’ of Japan. (Huckle & Sterling, 1996, p.212)

As a high school teacher, I have taught social studies such as geography, history, politics, economics, sociology and cultures separately for 4 years in the classroom in South Korea like the way Ken describe above, even though those subjects are combined as one subject with one text book. So my students can not understand social phenomena
as a whole and can not have point of view to it. I take as my point of departure a passage from description of David Orr to point out the problematic process.

“We have fragmented the world into bits and pieces called disciplines and sub-disciplines, hermetically sealed from other such disciplines. As a result, after 12 or 16 or 20 years of education, most students graduate without any broad, integrated sense of the unity of things.” (Orr, 2004, p.11)

The student educated that way will be a member of our society and they will construct society which is far from sustainable society. David Orr depicts the future that the students as members of society will construct again.

“The result is a generation of ecological yahoos without a clue why the color of the water in their rivers is related to their food supply, or why storms are becoming more severe as the planet warms. The same person as adults will create business, vote, have families, and above all, consume.” (Orr, 1992, p.86)

Through the master program in Outdoor Environmental Education and Outdoor Life, I have studied the way of teaching social studies in outdoor setting for the sustainable development as a part of this thesis. So this research suggests activities I have gathered to apply in the class of social studies.

In fact, there are many activities that are integrated among many disciplines such as socio-science, not just in social studies. But I need to put limitation on my research within social studies, because to be inter-disciplinary in all subject is too broad to execute my research. Furthermore, according to Dawson (2000, p.131)\(^1\), “we agree that

\(^1\) Ratcliffe and Grace, 2003, p.35
consideration of socio-scientific issues involves many facets, of which knowledge of science content perhaps plays a relatively minor role. Dawson argues that science teachers are not the best people to teach about society and social issues, given their particular educational background.” Teachers who teach social studies therefore play an important role to teach about social issues connecting to sustainability. So this paper will be limited to consideration of integrating subjects in social studies.

2. Social Studies and Sustainable Development

“Why are social studies important for making a sustainable society?” the answer of this question is the main content of this part of literature review.

2.1. Science and social studies

The development direction of technology is followed by human needs. Social studies suggest values and desirable behavior which form the human needs of students, so to change the direction of technology, social studies must change students first of all.

“The symptoms of environmental deterioration are in the domain of the natural sciences, but the causes lie in the realm of the social sciences and humanities. To assume that technology will absolve us from our own folly is only to compound the error. Whatever its many advantages, technology has varying political, social, economic, and ecological implications that we are now only beginning to recognize. Without political, social, and value changes, no technology will make us sustainable. More to the point, do we equip students morally and intellectually to be a part of the existing pattern
of corporate-dominated resource flows, or to take part in reshaping these patterns toward greater sustainability?” (Orr, 1992, pp.145-146)

As Orr asserted we have to equip students to participate in the sustainable way of life. The more environmental education is developed, the more importance of social studies is highlighted.

“Stressing the importance of social studies can be found in the development of environmental education. According to the selective tradition within Environmental education, central subjects have been shifted from natural science to economical, social and ecological perspectives as well as ethical and aesthetical aspects.” (Sandell et al, 2005, p.167)

John Huckle (1996) insists that environmental issues fundamentally have been based on social context. “More fundamentally, environmental or developmental concerns occur within and are a product of a particular social context. Accidents of history, social attitudes and values, economic, industrial and commercial development all enmesh to create the conditions from which the problems are an outcome. In the main, environmental problems are symptoms of entrenched social systems. Therefore, understanding requires critical social, economic and values investigation rather than environmental investigation. Unless the educational experience enables people to explore and analyse the fullness of the human-environment relationship, it is not possible to understand either the cause of the outcomes of human environmental management or any resolution to perceived problems.” (Huckle & Sterling, 1996, p.45)

As mentioned above, social context is becoming crucial part of changing the people’s behaviour and educating students toward sustainability.
2.2. Social studies and citizenship

The ultimate aim of Social studies as a discipline is fostering citizenship of students as members of society. “Citizenship has been central to the missions, contents, and methods of social studies education since its inception. The relationship between social studies education and citizenship has been so strong that at times the two have been viewed as synonyms.” (Segall et al, 2006, p.27) Moreover, according to the National Council for the Social Studies (NCSS) (1994), “All element of social studies point to the ultimate goal of promoting civic competence. NCSS defines it in the context of the main goal for teachers, which is to help children develop the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world.”(Burriss & Boyd, 2005, p.101)

If so, why do I refer to citizenship?

Barry gives a good account of necessity of citizenship education. “Environmental problems become issues and the problem arises of how the required changes in values and behavior are to come about to citizens. Inevitably, although not of course exclusively, the issue of citizenship education arises at this point.” (Barry & Baxter, 2004, p.116) That is, to confront environmental problem and make a sustainable society, it is requiring responsibility to act accompanied by citizenship. Environmental problems and issues are very debatable, so there are not clear collective decisions and agreements of values and actions. “The issue of environmental problem is, to the very greatest extent, a democratic issue.” (Sandell et al, 2005, p.235) So in education, “there is important question of how to develop democratic attitudes as well as a level of understanding that will allow for an active participation in environmental and
developmental debates in the young generation as citizens.” (Sandell et al, 2005, p.131) In terms of directing to sustainable society, deciding values, take responsibility and active participation, that is fostering citizenship, are coincident with aim and contents of social studies.

2.3. Experiencing democracy for sustainable development

When it comes to environmental issues, inevitably conflicting opinion and values and decision making must be included. So in every step of procedures to solve problems, democratic process must be required, and students must experience this process. Cooper insist that “Sustainability is not just about environmental protection but also includes sharing resources more equitably and improving the quality of our lives in terms of access to health care, education, justice, work, leisure and democracy. Sustainability relates to people from all sections of society and countries of the world. It is concerned with both present and future generations. It implies the need for a new ethic based on co-operation rather than competition, quality of life rather than standard of living and community rather than individual interest. Education must play a key role in chaining attitudes and behavior.” (Cooper, 1998, p.14) He differentiated sustainability from sustainable development, because ‘development’ implies economic growth and maintaining the status quo. (Cooper, 1998, p.14) However, in this article I will take up Cooper’s conception of ‘sustainability’ when I locate the term ‘sustainable development’.

“Education for sustainable development is an education in democracy rather than an education about democracy.” (Sandell et al, 2005, p.201) That is, learning process itself
must be taken place in the way of democracy as a content of social studies.

“Education for sustainable development, through developing pupils’ skills in, and commitment to, effective participation in the democratic and other decision-making processes that affect the quality, structure and health of environments and society and exploring values that determine people’s actions within society, the economy and the environment.” (Department for education and employment and the qualifications and curriculum authority: 8)² Through learning social studies, students must experience and acquire skills connecting to democratic process and attitude in decision making. “It is fairly safe to assume that in order to effectively teach the skills that can lead to civic competence, students must have the opportunity to practice such skills. The implication for teachers is that we must give our children the opportunity to be involved in open dialogue and communication, using higher order thinking skills. We must allow out children to make real decisions based on real-world problems.” (Burries & Boyd, 2005, p.102) Experiencing democracy is the essential and basic component for education for sustainable development or sustainability.

3. The Significance of Integrating Subjects in Social Studies for Sustainable Development

I suggest that integrating subjects in social studies can be desirable way to foster citizenship for sustainable society like follow: “If sustainable development is to be taken seriously we can, from an educational point of view, also see this as a dramatic increase in the opportunities for subject integration, theme studies and teamwork” (Sandell et al, 2005, p.69)

² Barry, Baxter and Dunphy, 2004, p.126
3.1. Integration of disciplines

The necessity of integration of disciplines is emphasized by David Orr strongly.

“A second danger of formal schooling is that it will imprint a disciplinary template onto impressionable minds and with it the belief that the world really is as disconnected as the divisions, disciplines, and sub-disciplines for the typical curriculum. Students come to believe that there is such a thing as politics separate from ecology or that economics has nothing to do with physics. Yet, the world is not this way, and except for the temporary convenience of analysis, it can not be broken into disciplines and specializations without doing serious harm to the world and to the minds and lives of people who believe that it can be.” (Orr, 2004, p.23)

Moreover especially in environmental education, integration of disciplines can be most effective way like follow: “Integration of disciplines can realize in school curriculum. One view that prevails among specialists in this field is that the most effective approach to environmental education in school is one which is holistic in nature, being integrated across the whole school curriculum.” (WCED 1987; Palmer and Neal 1994; Tilbury 1995)\(^3\)

3.2. Theme based integration

At first, the desirable way of integration must be explored. The way of integration I want to head toward in social studies is like follow: “Integrative – greater emphasis on interdisciplinary and trans-disciplinary enquiry, reflecting that no subject, factors or

\(^{3}\) Ratcliffe and Grace, 2003, p.31
issues exist in isolation. Trans-disciplinary means breaking free of disciplinary perceptions and traditions to create new meanings, understandings, and ways of working. Simply putting disciplines together, by contrast, is often no more than the sum of the parts.” (Huckle & Sterling, 1996, p.23) Moreover, there have been trials towards thematic integration like follow: “A tendency characteristic of the development within teaching is a clear movement from disciplinary to thematic categorization of the curricula” (Szczepanski, 1997, p.38) Though in South Korea there also had been trials to make integration, the present integrated subject in social studies as results of those trials in South Korea is no more than sum of parts, so I want to sublate the way of integrating in present integration and suggest theme centralizing integration.

Central axis of integration can be issues connecting to environmental problems and sustainable development. The contents as themes are various like follow: “The teaching content includes the relationship between local and global problems as well as between the past, present and future. The focus is on sustainable development and the related topics of economics, society and ecology. Sustainable development is a recurring theme in all education, due to its total integration.” (Sandell et al, 2005, p164-165)

Not least, it would be better that the themes is connected to students’ live like follow: “The cross-curricular themes, to take the most recent first, traded on their ‘relevance’ to a student’s life, the importance of exploring values with students and the breaking down of the artificial boundaries of the subject disciplines…..the breaking down of following those leads from ‘me to the world’. Because these features demand participation from students and an enquiry-based approach, knowledge fits in as part of that process of understanding and does not substitute for it.”(Huckle & Sterling, 1996, p.74)
In terms of integration of social studies, I suggest theme based integration not subject based integration.

3.3. Interdisciplinary for environmental education

David Orr (1992) said that “environmental issues are complex and cannot be understood through a single discipline or department. But interdisciplinary education remains an unfulfilled promise.” John gummer (Huckle & Sterling, 1996, p.214) also suggests that we must teach environment in whole subjects. “I believe that the environment should not be a stand-alone subject in the curriculum. That could lead to compartmentalizing and marginalizing – perhaps to its being one of those subjects which at a certain stage is no longer compulsory. The environment is compulsory – it is always with us. I look to see young people’s attention being drawn to the environmental inferences to be drawn from the whole curriculum – and also from the rest of their daily lives.”

Interdisciplinary is also one important part process and aim of environmental education like follow: “the critical role of environmental education in producing environmentally responsible students and citizens in the work-place and else where is acknowledged at all levels, and in both formal and non-formal education. The grand words and sentiments at Stockholm 1972), Tbilisi (1977), and Rio de Janeiro (1992) and scores of national conferences are all very similar, calling for interdisciplinary, life-long environmental learning and responsibility.” (Huckle & Sterling, 1996, p.96)

3.3.1. Interdisciplinary for citizenship
As citizens, students have to consider all social facets and conditions such as economics, politics, social, history, geography and ecology as a whole system. This ability is a core quality of citizenship. Orr describes this kind of citizen as wise public like follow: “In democratic societies, wise public choices about environmental issues depend largely on the extent and breadth of public knowledge of ecology and concepts such as thermodynamics and energetics and their interrelationship with economic prosperity, unemployment, war and peace, and public health. If large numbers of people do not understand the environmental facts of energy, resources, land, water and wildlife, there is little hope for building sustainability at any level.”(Orr, 1992, p.137)

As one of abilities of citizenship, understanding system of nature can be required by the managing curriculum like follow: “Second, the management curriculum will need to become more integrated and interdisciplinary so that teaching reflects the interconnected, indeterminate nature of the open-ended, chaotic systems in which we operate.” (Huckle & Sterling, 1996, p.170) e.g. “Student educated in interdisciplinary can examine the economic gain from industrial production they should always consider the environmental costs that industry inevitably carries.” (Huckle & Sterling, 1996, p.213)

3.3.2. Prospect of interdisciplinary

David Orr emphasized the change in whole education system not only the way of interdisciplinary. He describes people educated like the way of interdisciplinary like follow: “One result is that students graduate without knowing how to think in whole systems, how to find connections, how to ask big questions, and how to separate the
trivial from the important. Now more ever, however, we need people who think broadly and who understand systems, connections, patterns, and root causes.” (Orr, 2004, p.23)

Moreover, to borrow Orr’s phrase about necessity of fundamental change in education system like follow: “If education is to become a significant force for a sustainable and humane world, it must be woven throughout the entire curriculum and through all of the operations of the institution, and not confined to a few scattered courses.” (Orr, 1992, p.152) and “Education for sustainability will connect disciplines as well as disperate parts of the personality: intellect, hands, and heart. Connective education must go beyond -“interdisciplinary” or team-taught courses by changing the structure and purposes of education.” (Orr, 1992, P.138)

4. Outdoor Education for Sustainable Development

David Orr criticized the learning indoor like follow: “Indoor classes create the illusion that learning only occurs inside four walls, isolated from what students call, without apparent irony, the “real world.” (Orr, 2004, p.14) and “The civilization we have built causes us to spend 95% of our lives indoors, isolated from nature.” (Orr, 2004, p.212)

Moreover, especially in the social studies’ classes, what seems to be lacking is classes based on outdoor setting. “Very little has been written about using the outdoors as a setting for teaching social studies or for children playing with social studies themes. While a great deal of information about outdoor education is available, much of what has been written focuses on the environment and emphasizes the sciences. Therefore, it is important to explore the possibility that the out of doors offer for teaching social
Before looking more closely at relationship between outdoor education and sustainable development, the first point that we should address is what outdoor education is. “Outdoor education may be defined as ‘using the outdoors as a laboratory for learning’. Expanding upon this definition, we should recognize that outdoor education is an approach toward achieving the goals and objectives of the curriculum, which involve (a) an extension of the classroom to an outdoor laboratory; (b) a series of direct experiences, in any or all phases of the curriculum, involving natural materials and living situations, which increase awareness of the environment and of life; and (c) a program that involves students, teachers, and outdoor education resource people in planning and working together to develop an optimum teaching-learning climate.” (hammerman et al, 2001, pp.5-6) “Outdoor education is an approach which aims to foster learning through the interplay between experience and reflection, based on practical observation in authentic situations.” (not published hand out be center for Outdoor Environmental education Linkoping University, 2004)

The European Institute for Outdoor Adventure Education and Experiential Learning define Outdoor education as comprising outdoor activities, personal and social development and environmental education. Theses definition can be conceptualized according to <Figure 1>. (Higgins & Loynes, 1997)\(^4\)

One of three range and scope of outdoor education as <Figure1>, I emphasize environmental education in this part, because outdoor education, environmental education and sustainability can be connected like follow: Sustainability is an objective

\(^4\) (Szczepanski & Nicol, 2005, p.1)
of environmental education (Smyth, 1999) and environmental education is an objective of outdoor education (Higgins & Loynes, 1997). Moreover, environmental education has intimate relevance with sustainable development like follow: “Researchers and specialist teachers in this field generally agree that environmental education should encompass economic, social and cultural issues and their relation to the environment – thus the recent tendency to refer to environmental education as education for sustainable development.” (Ratcliff and Grace, 2003, p.30)

Moreover, the range and scope of outdoor education is expanded like <Figure 2> and it contains sustainable living as one of the component.

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5 Nicol, 2001, p.7
That is, sustainability is not only one of the fundamental aims of outdoor education but also a component of outdoor education. “Outdoor education has a unique role to play in sustainability because it is the direct experience of our surrounding environment that allows us to see that we are connected to it. If we see we are connected to it then we are more likely to see that if we cause irreparable harm (e.g. the climate, biodiversity, pollution) then it has consequences for our own health and well-being.” (Szczepanski & Nicol, 2005, p.3)

However, it’s hard to find substantive and concrete proofs that how outdoor education contributes for sustainability. “For example, at a Royal Geographic Society conference entitled Environmental Education, Ethics, and Citizenship (1998) it was reported that ‘the potential for outdoor education to deliver (sustainable development) outcomes is still largely unknown and underdeveloped.’”(Nicol, 2001, p.179)
4.1. Outdoor education and environmental education

What is the relationship between outdoor education and environmental education? Nicol(1994) answered this question through approaches of philosophy and inductive practices of outdoor education. I will follow Nicol’s idea of analyzing the process of the activities to find out relevancy between outdoor education and environmental education.

“It is achieved through an epistemological pluralism which embraces different ways of knowing. This epistemological position is an important bridge as it recognizes four ways of knowing, all of are necessary for holistic learning to occur.” In summary through experiential, presentational, propositional and practical ways of knowing (Reason, 1998, pp.42-44)\(^6\) outdoor education can take its place in delivering outcomes relation to sustainability education, sustainable living or environmental education.

“Experiential knowing is based on first hand and direct knowing. In this way, learning becomes an interactive relationship between the educator, the learner and the natural environment. Presentational knowing allows learners to reflect on their experiences and help learners explore representations of their experience and what that experience means in a wider social and natural context. Propositional knowing allows pupils to explore the world beyond that of their experiential and presentational knowing and provides the pupil with another form of knowing not accessible by direct experience alone. Practical knowing means not only outdoor activities but also an action that is an outcome of a conscious decision by someone to act. Suzuki(1997, p.214)\(^7\) takes this a stage further suggesting that “action invariably precedes a profound shift in values.” (Nicol, 1994)

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\(^6\) Nicol, 1994
\(^7\) Nicol, 1994, p.10
According to Nicol’s (1994) example, experiential knowing offers inspiration and desire to learn more, presentational knowing enhances experiential learning through recall and enable to build up understanding from others to share experiences. Propositional knowing extends presentational knowing and has a further dimension in that it allows us to think conceptually. Practical knowing enable us to take actions in line with our beliefs and based on our knowledge of given education.

Outdoor education makes it possible to be taken place, from experiential knowing to practical knowing. Practical knowing is connecting to active citizenship that Osler and Starkey (2005) defined in terms of practice, associated with democracy and with human right.

4.2. Environmental education and citizenship

As one of the outdoor education in Figure 1, Environmental education is also important in terms of citizenship as a social studies aim like follow: “As one of three main approaches – the knowledge approach (education about the environmental), the need of society approach (education through the environment) and the critical enquiry approach (education for the environment) - in teaching environmental education, the ‘critical enquiry approach’ (education for the environmental education) is parallels aims of citizenship education. “Outdoor learning provides unlimited possibilities for children to become good citizens.” (Burriss & Boyd, 2005, p.103) “Education for the environmental education builds on education about and through the environment to develop a sensitive environmental ethic, through a critical examination of values and attitudes, and alternative solutions to environmental issues. It involves developing
informed concern for the environment, a sense of responsibility, active participation in resolving problems, and the communication and participation skills that are needed if we are to guarantee environmental protection. So this approach is essential in order to develop lifestyles compatible with the sustainable and equitable use of resources.” (Ratcliff and Grace, 2003, p.30)

4.3. Experiential learning and environmental education

To foster citizenship being accordance with environmental education, experiential learning by outdoor education is necessary, because “The outdoor education provides experiential learning to students and encourages them to have respect for the environment.” (Higgins & Nicol, 2002), and “Real learning is participatory and experiential, not just didactic. Experience in the natural world is both an essential part of understanding the environmental, and conductive to good thinking.” (Orr, 1992, p.91) as well as “the classroom is hardly a place to provide such life experience, as it is artificial and contrived at best.”(Burriss & Boyd, 2005, p.102) As the way of perceiving environmental problems, first had experience connecting to experiential learning is important like follow: “The more traditional, concentrated and local environmental problems could often be experienced first hand out in the landscape. For example, it was possible to take a school on a field trip to see examples of environmental damage. Whereas nowadays most people in the industrialized countries are aware of the greenhouse effect, very few can claim to have ‘experienced it’.” (Sandell et al, 2005, p.61)
4.4. Outdoor education, place and locality

In social studies, outdoor education can be meaningful when it is connecting to place and locality, because “the identities of individuals and peoples are rooted in particular places, as well as in the human constructs called regions. Our “sense of self” is, indeed, bound to our sense of places. Who we are is sometimes indistinguishable from where we are; to better understand other peoples, cultures, and regions of the world, it is important for students to understand their own places.” (Burriss & Boyd, 2005, p.114)

The importance of place in outdoor education varies in point of view. Above all meaning of place in outdoor education from the concept like follow: “The concept of outdoor education acknowledges the importance of selecting an appropriate place for education as well as technique or means of learning. In this setting students learn directly about eh relationship of knowledge to eh physical reality of that place.” (Higgins & Nicol, 2002, p.2) Orr also mentioned meaning of place like follow: “Outdoor education is laid on the importance of the place of learning. The integration of place into education is important reasons. It requires the combination of intellect with experience.” (Orr, 1992, P.128)

“The study of place involves complementary dimensions of intellect: direct observation, investigation, experimentation, and skill in the application of knowledge. In order to gain an understanding of environmental problems, the teaching process focuses on knowledge within the actual discipline. When dealing with environmental problems, the focus is on the study of scientific facts concerning current localized problems, their background and causes.” (Sandell et al, 2005, p.161) Field trip is one of good ways of outdoor education in social studies’ class. As an outdoor education, Sandell(2005)
suggest Open encounter: In an open encounter the encounter has value in itself and it is entirely open as to what students learn. An open encounter can take the form of, for example, a field trip to location which has suffered some environmental damage with follow up discussions on the value of nature or global resource distribution. (Sandell et al, 2005, p.203)

“Places are laboratories of diversity and complexity, mixing social functions and natural processes. Its inhabitants are part of a social, economic, and political order: they import or export energy materials, water, and wastes, they are linked by innumerable bonds to other places.” (Orr, 1992, P.129) David Orr gave Walden as an example to show the education taken place: “Walden is an antidote to the idea that education is a passive, indoor activity occurring between the ages of six and twenty-one. In contrast to the tendencies to segregate disciplines, and to segregate intellect from its surrounding, Walden is a model of the possibility unity between personhood, pedagogy, and place. It was a laboratory for observation and experimentation; a library of data about geology, history, flora, and fauna; a source of inspiration and renewal; and a testing ground for the man.” (Orr, 1992, p.126)

Therefore, I suggest that for students local community to which students belong is best place to have outdoor activities based on social studies. The forthcoming section will demonstrate this activity in more detail.

5. Community Based Outdoor Activities.

The remainder of this literature review will illustrate community based outdoor
activities as a main activity I would like to suggest.

The community where student belong to is good place for participation to have experiential learning like follow: “The ‘need for society approach’ (education through the environment) is a learner-centered approach, using students’ direct experiences of the environment as the medium for education. It aims to add reality, relevance and practical experience to learning by immersing students in the values conflict over local environmental issue, such as recycling schemes, transport systems, or green consumerism.” (Ratcliff and Grace, 2003, p.30) and “Education that supports and nourishes a reverence for life would occur more often out-of-doors and in relation to the local community.” (Orr, 2004, p.148)

Orr emphasized community as an important place: In Mumford’s words, the regional survey was “it is rather the backbone of a drastically revised method of study, in which every aspect of the science and the arts is ecologically related from the bottom up, in which they connect directly and constantly in the student’s experience of his region and his community. (Orr, 1992, pp.127-128) The study of the region would ground education in the particularities of a specific place and would also integrate various disciplines around the “regional survey,” which includes surveys of local soils, climate, vegetation, history, economy, and society. (Orr, 2004, p.148)

Huckle and Sterling explain community based learning like follow: “Specific methodologies employed might include or emphasize experiential and cooperative learning; systemic thinking, patterns, soft boundaries and fuzzy logic; the clarification and judgement of values; ideology critique; critical reflection and creative thinking; the envisaging of sustainable futures, sensory and empathetic exercises; communication
skills; learning as a continuous process for all; and work outdoors and in the community.” (Huckle & Sterling, 1996, p.36)

“Much has been writing about the virtues of community education, building on research findings that educational participation among children and adults is strongly connected with the extent of an individual’s integration into community life.” (McGivney, 1993) Community education is about the creation of opportunities for community members – individuals, schools, businesses, and public and private organization – to become partners in addressing community needs. Many non-governmental organizations have a program of community-based projects encouraging schools to take part in local community work. The strength of a community or cross-curricular project is in tackling a real and locally relevant issue. Such projects not only bring school and community together, but can also help to bridge the gap between science in the classroom and science in ‘everyday life’. (Ratcliffe & Grace, 2003, p.83) Local environmental provide obvious starting points for group involvement and action. It is essential that leaders relate their groups’ experiences to their home environment, wherever they take place. (Cooper, 1998, p.85) After students are equipped for sustainable living through outdoor activities in community, they also can start to think broadly time-wise as well as space-wise like follow: “The concerns of citizens, which are often focused on local and national issues, have expanded as local and national media report events in previously remote areas.” (Osler & Starky, 2005, p.7)

Consequently, I suggest community based outdoor activities as a good way of outdoor education in social studies to achieve education for sustainability.

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8 Ratcliffe & Grace, 2003, p.83
CHAPTER II. RESEARCH METHODOLOGY

1. Aim of the Study

1.1. Main goals

Main goals of this research are to suggest classes taken place in outdoor settings based on local community through activities integrating subjects in social studies. Therefore main point of this thesis is how community based outdoor activities as a form of outdoor education is conducive to foster sustainable way of living to students. I try to prove that local community based activities can be good way of cultivating ecological citizenship and such activities can also contribute to integrate subjects in social studies consequently that is conducive to sustainability. In addition, I attempt to offer local community based activities to teachers who teach social studies.

1.2. Research question

Outdoor activities based on local community can affect students in various dimensions such as fostering ecological citizenship, experiencing direct encounter, and having affection of their community. Of those dimension, I want to find out the contribution of the activities for student to encourage sustainable living as a main question. To find linkage between those activities and sustainability, I also ask the level of integrating subjects in social studies because, to aware the society or world as a whole is important as I demonstrated in part 3 of literature review. Therefore, the question about the level of integration is indirect question to measure the contribution to sustainability.
To explore impact of local community based activities on students, I ask benefits and drawbacks of doing those activities to teachers. In addition, to promote these kinds of activities for social studies’ class I want to ask the existing barriers in the present scene of schools as one of the subsidiary question.

- **Primary question**
  How do local community based outdoor activities contribute to education for sustainability?

- **Subsidiary questions**
  What are advantage/disadvantages of local community based outdoor activities?

  What are difficulties or obstacles to have local based outdoor activities in social studies’ class?

2. **Research Method**

2.1. Subject/participant

Among the Korean teachers, I chose teachers who teach social studies to 7-10 grades (13-16 ages). Since 2002, Korean government of educational office has appointed teachers who take charge of an integrated subject in social studies. Their majors in university are various e.g. geography, sociology, history, politics, economics and civics. I sent e-mail to 10 teachers and tried to include different major of teachers as diversely as possible and had received answers from 7 teachers.
I also tried to contact Swedish teachers who teach social studies to student upper 13 years olds. I visited Anders Ljungstedts Gymnasium in Linköping and Head Master of the school introduced me H.P.M.P programme which is an initial of Business Programme and Media Programme and suggested me to participate in the programme. The activities and contents in that programme overlaped with the activities I wanted to offer, because in the programme they deal with tourism, consumerism, and media publishing. So I decided to join that programme and simultaneously 5 teachers involved programme became the participants of this research. They chose one of the community based outdoor activities and then they completed my questionnaire. Moreover, two teachers in Kärna Skola in Linköping got involved as participants of my thesis.

2.2. Procedure

Among the 17 activities, I collected the 15 activities relating to community based outdoor activities from books: ‘Outdoor learning and play’, ‘Teaching in the outdoors’, ‘Education for sustainable development’, and ‘Working out of doors with young people’(cf. references) and the 2 activities made by me by taking idea from books. I sent the activities to the teachers by e-mail. To the Korean teachers, I sent them the end of the February 2007 when the winter vacation ends and a week earlier starting to new spring semester. I contacted the Swedish teachers in February and sent the activities middle of February. Before I sent the activities, I had met all the Swedish teachers to present and explain about my thesis and the activities. When they chose one activity of them, I was joining the discussion and explaining the activities to help them choosing one. But one of the teachers in Kärna skola wanted to conduct 6 activities with 7th grade
students (age 14) in a class through dividing students to 6 groups, so she answered according to the one activity that she thought successful. In the case of the Korean teachers, I had contacted with them mainly by e-mail and also discussion and explanation about activities had been held by e-mail to choose the one activity. I had conversations with some Korean teachers who required more explanation about the activities and my thesis by the phone.

After they chose one activity they wanted to conduct, they let me know which activities and when they would do. The teacher in both countries had conducted the activities in March and I attended 4 activities being held in Sweden. After they had done the activity, I sent questionnaire to them by e-mail in the beginning of April and received the answers until in the middle of April.

2.3. Measures

I mainly use open-ended/direct questionnaires as a qualitative method to ask opinions (Bell, 2005) and Likert scale to explore respondents’ attitudes (Veal, 2006, p.265) about the level of integration of subjects in social studies.

2.3.1. Likert scale

The level of integrating subjects in social studies through the activities will be asked by Likert scale to quantify and measure it. I divide answer as 5 levels from very low to very high of which the teachers have to choose one.
In the case of the level of integration, teachers have to answer twice, that is the level of integration of the one activity they did and the overall level of integration of the whole activities I offered.

2.3.2. Open-ended/direct questionnaires

As the questions of outset the age and the number of students and the type of school were asked by the open-ended questionnaires.

As the main questions, relevancy to principles of sustainability, the process of activities in terms of the four different kinds of knowing, the reason why they chose the specific activity as outdoor class, advantages/disadvantages of the local community based outdoor activities, and the difficulties or obstacles to execute theses activities were asked by the open-ended/direct questionnaires.

Especially to find out the contribution of the local community based outdoor activities for sustainability I will use two approaches with open-ended questionnaire. First approach is relevancy to principles of sustainability and second approach is focusing on the process of activity such as four ways of knowing that is experiential, presentational, propositional, and practical knowing because to be successful activity regarding to foster sustainability, activities must fulfill those four ways of learning relying on Nicol’s framework. I assumed that learning can not be completed only by experiential learning. Rather, as one process of whole learning, experiential learning is a good point of starting to learn. To complete leaning, students must read books and have lecture from teachers as a normal learning process being held in the classroom. Actually the activities
that I offered consist of different way of learning and the four ways of knowing can include these all ways of learning. Therefore I chose to use it as a tool of analysing the activities in this research.

As the first approach, I will provide statements and principles that Nicol (2001) suggested. The teachers had to answer their opinions in terms of relevancy between the local community based outdoor activities I provided before and principles of sustainability.

The statements and principles like follow:

- All human activity is ultimately dependent upon the environment, its natural resources and processes. (Scottish Natural Heritage, 1993)
- Our interactions with our environment and its natural processes are so complex that it is often difficult to predict the consequences of our activities. (Scottish Natural Heritage, 1993)
- Minimise the depletion of resources. (International Union for the Conservation of Nature, 1991)
- Intergenerational Equity – we should do nothing which puts at risk the natural environment’s ability to meet the needs, both material and non-material, of
future generations. (Scottish Natural Heritage, 1993)

- Societal Equity – one sector of society should not exploit natural resources nor damage the environmental at the expense of another. (Scottish Natural Heritage, 1993)

- Inter-Species Equity – we should respect other life forms: rarely, if ever, are we justified in driving them to extinction for our own purposes. (Scottish Natural Heritage, 1993)

- If people are to play their full part in achieving a sustainable future, they need to know how their actions at home and at work affect the environment. (Prescott, Deputy Prime Minister, 1999)

- Education for sustainability starts from the aim of people altering their behaviour to achieve sustainable living, i.e. living in a way that does not deplete non-renewable resources which will be needed by future generations. It acknowledges that people are problem and the solution to most environmental problems and recognizes that economic, political, social and cultural behaviour have a big part to play in sustainable living. (Royal Society for the Protection of Birds, 1999)

As second approach, I gave them statement to find out if the activity they did includes the each specific way of knowing. The teachers had to write the processes of the activity in accordance with each way of knowing. If there is no process included connecting to ways of knowing, they left the blank spaces. The following shows the questions to deal with each way of knowing.

9 Nicol, 2001, p.181-183
Experiential knowing

- Students have opportunities to have direct face to face encounters with person, place or thing.

Presentational knowing

- Students express their experience through various forms.

Propositional knowing

- Students try to develop their experience through ideas and theories expressed in abstract languages or mathematics.

Practical knowing

- Students try to participate in the local problem they found through the activities.

2.3.3. Observation

I observed 4 classes held in Linköping in Sweden in the end of March to find out the specific process according to four ways of knowing. They were 3 classes in Gymnasium and 1 class of 7th grade in grundskola. The observation was informal and partly structured. I prepared the frame work for the four different ways of knowing and whenever I had found out the process in accordance with the specific ways of knowing, I had been writing the process in the frame. The results of my observation will be compared to the results of the teachers’ answers in the questionnaire.
CHAPTER III. RESULTS

This chapter will present the results that I applied to this research. I will show the results by dividing 6 sections according to the order of questionnaire.

1. The conditions of the activities and teachers’ choices

2. The level of integration

3. Relevancy to sustainability

4. The process of the activities and four ways of knowing

5. The Advantages/Disadvantages of the activities

6. The Obstacles to have the local community based outdoor class in social studies’ classes

1. The Conditions of Activities and the Teachers’ Choices

1.1. The conditions of the classes teachers had

In the case of the Korean teachers, they conducted classes with students ranging from 33 to 40 and the average number of students is 37.1. While on the other, did the Swedish teachers with students ranging from 6 to 10 and the average number of students is 7.7. Moreover, one of the Swedish teachers divided about 60 students to 6 different groups and allocated the different activities to each group so per one activity there were less than 10 students.
The Korean teachers and Swedish teachers both had activities with upper 13 years old students but did some of the Swedish teachers with mentally retarded students having learning disabilities.

1.2. The choice of activities and the reason of choices

Korean teachers [translations are my own.]

3) Environmental quality survey – Students can observe the environment with the certain standard.

9) Compare the places - Through comparing the places in the local community, students can understand the characteristic of the places well.

10) Trash of the community – Students can understand the ways of effective utilization of resources as a subject of using them.

11) Find a history in community – Students can have an opportunity to know historical events connecting to the place in local community.

13) Transportation needs – Public transportation is easy to access for students to investigate.

17) Treasure hunt – Usually student spend most of time to practice reading map so it is a good chance to make a map to know the place and space where they live. Of the activities, the reward of activity is relatively concrete and there is interesting element for students. It looked
easy to have an assessment from their achievement.

17) Treasure hunt – Students can have an opportunity to observe the natural environment which they are not familiar with. (She intentionally designed the activity in natural environment not in urban area which students familiar with and spend most daily life in.)

Swedish teachers

1) Choosing Important Places in My Community – It fits my subject. Some activities are more suitable for other subjects.

2) Sign post - The one with the signs, but we choose to put it in to our own context. We are working a lot with design. It is also important to see if there is any use of all signs.

2) Sign post - The part of the activity is included in HPMP’s program

8) Making fund – It is substantial act conducive to make good environment of local area.

11) Find a history in community – It is important to know the local history because student can become to know how people lived in their community in the past, how the way of life changes and how the community has developed. This knowledge found by story that is, local history can be the fundamental element to have concern about their community.
14) Open – Space Planning – It fits well the program (H.P.N.P) we are in.

1.3. Summary from the answers about the classes’ condition and reason of the choices
The obvious difference between the teachers from the both countries is the number of students they had to lead. The Korean teachers led relatively big groups of students compared to the Swedish teachers. The Korean teachers mentioned new way of learning and special experiences as the reason the choices on the other hand, the Swedish teachers pointed out how the activities fit the context of their usual classes.

2. The Level of Integration

2.1. The level of integrating subjects in social studies by one activity that each teacher chose

To the question that is, “Which level of integrating subjects in social studies was achieved by the activity you did?” of all the 14 teachers 5 teachers answered ‘High’, 4 teachers answered ‘Middle’ and 4 teachers answered ‘Low’. The percentages of answers to this question from all teachers are shown in the <Figure 3>. 
Among the Swedish teachers 3 teachers said ‘High’ and 3 teachers said ‘Middle’. Among the Korean teachers 2 teachers said ‘High’, 1 teacher said ‘Middle’ and 4 teachers said ‘Low’. All teachers who said ‘Low’ are the Korean teachers. This result appears well in <Figure 4>.

The percentage between the Swedish teachers and Korean teachers of all is presented in <Figure 5>.
2.2. The level of integrating subjects in social studies by all 17 activities

To the following question, “Which level of integrating subjects in social studies was achieved by whole activities overall?” of all the 14 teachers, 1 teacher answered ‘Very High’, 7 teachers answered ‘High’, 4 teachers answered ‘Middle’ and 1 teacher answered ‘Low’. The percentages of answers to this question from all teachers are indicated in the <Figure 6>.

Among the Swedish teachers, 1 teacher answered ‘Very High’, 3 teachers answered
‘High’ and 2 teachers answered ‘Middle’. Among the Korean teachers 4 teachers answered ‘High’, 2 teachers answered ‘Middle’ and 1 teacher answered ‘Low’. <Figure 7> presents this result.

![Figure 7](image)

<Figure 8> tells us how much percentage of each country’s teachers’ answers account for.

![Figure 8](image)

2.3. Summary from the answers about the level of integration

There is a clear tendency that the answers shifted toward high from the first question that is, the level of integration by one activity to the second question that is the level of
integration by all activities. There is no teacher who answered shifting toward low from
the first question to the second question. The Swedish teachers’ answers are toward
higher than the Korean teachers.

3. Relevancy to Sustainability

3.1. Answers from the teachers of the both countries about the relevancy to
sustainability

Swedish teachers’ opinions like follow:

- Of course, we are dealing with humans. We can never predict the result if we
  want to be objective. Is it necessary to predict the consequences of the activity? I
  think we should teach the students that we never could predict a result.

- Depends on whether the community life is bad or evil.

- Depends on what you mean by quality of human life? Quality life can be bad for
  some people. Quality is not the right word.

- Everything we do puts a risk to the natural environment.

- Depends on the social sector. I don’t believe in the word quality I think the word
  justice or rights, is the right word.

- Not necessary, you can start at school and then work for a better environment at
  home. It is necessary to have knowledge and have something to compare with
  your own perspective.
It's important that students visit to environment to be able to use all senses for learning.

It is important to understand, participate and follow information, rules, laws from governing body and show respect and care for maintaining an endurable society.

Our most important goal is to get the students prepared for a future life in the society. To be a part of something that big – and to be able to really influence your situation you need to see different parts, to observe things you perhaps would not see if someone did not point it out to you. Observing things in group is one way to get other’s reflections.

It’s important that the pupils are included into the ‘real world’ before they finish school. Otherwise it will be a chock for them.

To know local community is important to be a good member of community for sustainability

To practice and act the specific behavior is the better way to learn the sustainability rather than to learn by lecture.

Korean teachers’ opinions like follow (translations are mine):

Student could have an opportunity to think about the fair utilization of the space in their local community in terms of sustainability

It can be a starting point of sustainability to know the condition of the local
community environment.

- To know about the history of the local community offer students a good chance to have interest about local community and it shares the context with principle 3 “respect and care for the community of life.”

- It is a prerequisite that students learn about the living space and the place to live in sustainable way.

- Through the field work, students can understand the importance of the place and the relationship between residents and environment. Therefore, this activity is not learning about sustainability as itself rather learning for sustainability simultaneously.

- To investigate public transportation, students can understand the importance of efficient usage of public transportation to prevent exhaustion of fossil fuels and realize the necessity of efforts to invent alternative resources because according to principle 9, it is intimate to students’ daily routine.

- These activities are the ways of learning for sustainability because through the process of activities such as experiencing, expressing, and searching for solutions, students can realize that human is the subject of making environmental problems and solving the problems as well. Moreover, these activities have more educational effects to find out that sustainability depends on the efforts of individual rather than superficial approach that text books offers.
3.2. Summary from the teachers about the relevancy to sustainability

One Swedish teacher has strong opinion about sustainability so he tried to discuss with the every principles and usage of terms. The Swedish teachers mentioned ‘real world’ and ‘future life’ as an important thing for students. The Korean teachers followed the principles and tried to interpret the principles by connecting the activities they had. Two teachers of the Swedish teachers did not give me any answers.

4. The Process of the Activities according to Four ways of Knowing

This part presents the process of the activities analyzed by four ways of knowing. Two points of view will be offered in the case of the 4 Swedish classes that I had attended to observe the process of the activities. If there is no answer to each way of knowing, it means that the teachers could not find any process in the activity in questionnaire. ‘Not mentioned’ means that the teachers left blank space and gave no answer.

4.1. Results of Questionnaire from Swedish teachers and my observation.

4.1.1. Choosing important places in my community at Stora Torget, on 28th of March 2007

There were 3 groups involved in the activity. They met with teachers at school before going to Stora Torget and got some instruction about the activity. Then they went to Stora Torget by themselves to conduct interview with people passing by the place. The first group did the interview near the bus station, the second group was near the market place and the third group conducted it in front of the bank and place for parking bike.
The students had to talk with 10 people, but it was taken place between 9:00 to 10:00 in the morning, so there were fewer people passing and students felt that they were very busy to go to work and looked stressful. The two groups in the market place and in front of bank achieved only 5 interviews and one group in the bus station could conduct 10 interviews. The teacher involved in this activity does not follow the students, because he wants to foster independence through outdoor activity in his class. (See pictures of this observation in Appendix – E)

- Experiential knowing

Swedish teacher (ST – an abbreviation of Swedish teacher) - Not mentioned

My observation (MO – an abbreviation of my observation) - Though conducting the interview students could have direct face to face encounters with people passing by the place.

- Presentational knowing

ST - In the classroom, they had to present their survey of the research.

MO - Students discussed about people’s answers and responses.

Students took pictures of responses and behavior and with it they made journals based on interview.

- Prepositional knowing

ST - Not mentioned.

MO - Before they conducted interview, they had lecture with teacher about democracy and atmosphere of society.
Students made questions for interview from the lecture about democracy by themselves.

◆ Practical knowing

ST - Students tried to find solution of problems they face in the daily life.

MO - After conducting interviews, they backed to the classroom and applied results of interviews to their family life.

4.1.2. Open – Space Planning at Cloetta Center on 29th of March

The teacher involved this activity put some variation to the original activity. She set the Cloetta Center as a place for open-space planning and made students study about sponsorship and consumerism connecting to maintaining the important and symbolic place where people in the community spend their leisure time and the important events of the community such as ice hockey game take place. This activity took place at 13:00 for 2 hours. After they visit there, they backed to the class room and discussed what they had listened and seen in the Cloetta Center.

◆ Experiential knowing

ST - The entire visit

MO - Through visiting the Cloetta center, students could have a chance to see the particular place and meet one of managers in the center.

◆ Presentational knowing
ST - The entire visit

MO – None (I could not find any process connecting to presentational knowing.)

- Prepositional knowing

ST - Not mentioned

MO - After they backed from the Cloetta Center, they had lecture about sponsorship and Fan ship of LHC (Linkoping Hockey Club) discussed economical meaning of the events taken place in the Cloetta Center.

- Practical knowing

ST - Not mentioned

MO – None (I could not find any process connecting to presentational knowing.)

4.1.3. Signs in the community at Tradgårdstorget on 30th of March

Students took a lecture about functions and types of signs and logos in the community before they went to Tradgårdstorget. They sorted out types of signs according to their usage for traffic, information and advertisement. There were 2 groups consisted of different ages. They had to take pictures of signs and fill out the answers about signs and logos such as how much design and color or letter of signs and logos are well matched to environment of surroundings, functions of them, where they are placed and who will be the senders and the recipients of them. This activity was taking place from 10:00 to 11:30 and they went to the place by themselves as well. Two analyses from
two Swedish will be presented because two teachers got involved this activity.

- Experiential knowing

ST1 - Their tasks were to observe and make photograph signs of all kind.

ST2 - By making actual photo of different signs.

MO - Students can have a chance to watch carefully the signs located in the real community such as streets, roads and buildings.

- Presentational knowing

ST1 – After back to school, students made power point show.

ST2 – Not mentioned.

MO - After students returned to their classroom, they had to make a Power Point file to present the signs they had collected.

- Prepositional knowing

ST1 - The form of the signs will be a geometry lesson later on.

ST2 - By transforming and organizing the information and present it to others.

MO - Students became to know the general concept and functions through the lecture they took before going to field work.

- Practical knowing

ST 1 - Why is that sign placed right there ? By whom, meant to do what …

ST2 - They have to understand and train to observe general information given to the
citizens.

MO - Student had a chance to suggest solution for misused sign and malfunction sign.

4.1.4. To Visit Historical Places in the local community at Cemetery in Malmslätt on 30th of March

This activity is based on the old story about the three sons and three daughters in the local society. Students visited different spot connecting to the story and found out the proofs of the historical events and the origins of the name of the places. This activity took place from 13:00 to 14:00. 4 Students 7th grade of grund skola were involved in this activity. The teacher divided students to 6 groups and conducted them at the same time so she could not offer the analysis to this activity. Therefore, only my observation will be presented. (See pictures of this observation in Appendix – E)

- Experiential knowing

MO - Students visited the historical places connecting to the story of the local community.

- Presentational knowing

MO - Students told story to me on the way to visit the places and explained connection between names of the places and story. Moreover, after they backed to the class they made a brochure about local history with the pictures of the places.

- Prepositional knowing
MO – The teacher had told the story to the students and gave them a map indicating the places connecting to the story before they went to visit the places. After the field work, teacher taught similar story in other town in Sweden and let the students find general characteristic from those local histories.

◆ Practical knowing

MO - They made brochure about the story and place to let people know about history of the local community as a way of keeping the local community heritage.

4.1.5. Making fund on 30\textsuperscript{th} of March

This activity was conducted on the same day when the two activities above had been doing. So there will be no analysis of my observation. 9 students got involved in this activity with one Swedish teacher.

◆ Experiential knowing

ST - Students collected recycle stuffs and visit and watch how the recycle stuffs are treated in local supermarket.

◆ Presentational knowing

ST - Not mentioned.

◆ Prepositional knowing

ST - Not mentioned.
Practical knowing

ST - Students donated the money they exchanged with recycle stuffs they collected.

4.2. Results of Questionnaire from the Korean teachers (Translations are mine)
I could not have observed the class they had so only the analysis of the Korean teachers will be presented.

4.2.1. Compare the places

33 students 1st grade of high school (age 16) took part in this activity and one geography teacher led the groups.

- Experiential knowing

Students observed and felt the visual, auditory, and olfactory environments of the area which they investigated

- Presentational knowing

Students presented the characteristics they experienced and investigated and compared the results among another.

- Prepositional knowing

They had had a lecture about concepts and functions of places in the city before they went to field work and they had to connect their knowledge to their experience.

- Practical knowing
Student suggested the solution to make the fair utilization of the spaces in the local community

4.2.2. Environmental quality survey

38 students 2nd grade of middle school (age 14) participated in this activity with a teacher who teaches an integrated subject in social studies.

◆ Experiential knowing

Student observed and evaluated the local area.

◆ Presentational knowing

With diagram and chart, student can present their results of survey.

◆ Prepositional knowing - Not mentioned

◆ Practical knowing

Student tried to find out the solution to improve the condition and put their suggestion in board of municipal office webpage.

4.2.3. Find a history in community

33 students 1st grade of high school (age 16) took part in this activity and one history teacher led the groups.

◆ Experiential knowing
Students visited the meaningful place in terms of history.

- Presentational knowing

Students performed reenactment drama with historical events connecting to the place.

- Prepositional knowing - Not mentioned.

- Practical knowing

Students became to know that most people including them in the community had not known about local history so they felt necessity that they would inform local history to other people in their community.

4.2.4. The treasure hunt

38 students 1st grade of high school (age 16) took part in this activity with one geography teacher and did 40 students 1st grade of middle school (age 13) with one teacher who teaches an integrated subject in social studies. The one teacher who led middle school student intentionally organized the class in the nature environment.

- Experiential knowing

Korea teacher (KT – an abbreviation of Korean teacher) 1 - Students had to observe the place to make a map precisely.

KT 2 - Students visited the hill and sandbar.

- Presentational knowing

KT1 - Students had to express the direction and distance in right way.
KT2 - Students made a map with various ways to express information of space such as a traverse table, symbols and contour lines. Student also had to write reflection about the activity

- Prepositional knowing

KT1 - Students used the symbols and scale they had learned before.

KT2 – Not mentioned.

- Practical knowing – Both Korean teachers - Not mentioned

4.2.5. Transportation needs
38 students 1st grade of high school (age 16) took part in this activity and one teacher whose major is civic led the groups.

- Experiential knowing

Students observed the specific state of transportation and the volume of traffic.

- Presentational knowing

Students made the diagrams and graphs to deliver the information they had observed.

- Prepositional knowing – Not mentioned

- Practical knowing

Students petitioned at municipal office webpage as a civil appeal.
4.2.6. Trash of the community

38 students 1st grade of high school (age 16) took part in this activity and one geography teacher led the groups.

- Experiential knowing

Students met the people who handle the trash and had interview with them.

- Presentational knowing

Students made a drama about the process of the treatment of trash.

- Prepositional knowing

Students made a charts and diagram with statistical data of trash.

- Practical knowing

Students made an action plan to reduce trash at home and school such as segregated garbage collection and leaving no food trash.

4.3. Summary of analyzing the activity by four ways of knowing from teachers answer and my observation

Of the 14 teachers, one teacher could not find the experiential knowing even though according to my observation there is an obvious process in accordance with the experiential knowing. In the case of the presentational knowing, two teachers could not find the process. Especially, when it comes to the prepositional knowing, 7 teachers of the 14 teachers, that is, half of the teachers could not find the prepositional knowing.
Three teachers of them could not find out practical knowing in the process of activities. Even though 2 teachers did same activity, one teacher found the presentational process while the other could not find it. Therefore if whole process according to the four ways of knowing are included or not in the activity is not depend on which specific activity they did.

5. The Advantages/Disadvantages of the Activities

5.1. Advantages

Swedish teachers

- I don’t think you can say that community based activities have more advantages/disadvantages. Good learning should have various form of teaching. And a good teacher should feel the students and organize the classes for what is the best method for them.

- It gives impression to all senses.

- It is good to be a part of the ‘real world’.

- Student can practice desirable action and find out the effect of their action for their local society.

- It is more real for them, they can much better understand how things are.

Korean teachers

- Students can understand the place by direct experience.
- Students became to have interest and affection to their local community by the activity.
- Students can learn local history not offered in text books.
- Students can have interest about the area and place where they live and can practice the process of field work.
- Students can have a chance to use and confirm knowledge of map through making a map by themselves.
- Students can experience good action or behavior that connecting to sustainability.
- Students can understand the interaction between human and environment by experiencing the local community which they are familiar with. Otherwise, students regard the interaction as an abstractive thing.

5.2. Disadvantages

Swedish teachers

- It takes a long time to transport back and forth.
- It is difficult that students find out problems because they only concentrate on making maps and finding treasure as a game.

Korean teachers

- Student became to know the residential condition of each classmate in the class.
They felt uneasy about that.

- Students tended to neglect the effect of neighbor community when they thought about problems in their community.

- If teachers can not offer the enough background knowledge and motivate students properly, they can not understand the purpose and meaning of the activity. So the activity can offer fragmentary experience and can not maintain the motivation for desirable action to students.

5.3. Summary of advantages/disadvantages of the local community based outdoor activity

One Swedish teacher said advantages/disadvantages depend on the teacher not activity. However, using all senses and experiencing real world were pointed out by the Swedish teachers as advantages. The Korean teachers mentioned direct experience, having interest and affection for local community, practicing the process of field work and good actions and behaviour for sustainability and understanding the interaction between human and environment as advantages. Most teachers left blank space for disadvantages but taking long time, regional self-centeredness such as NIMBY or PIMFY and momentary of activity were mentioned.

6. The Obstacles to Have the Local Community Based Outdoor Class in Social Studies’ Classes

6.1. The answers from the both countries about actual obstacle they have in the present school scene.
Swedish teachers

- It’s no more problems than indoors to conduct. It’s up to teachers.
- Nothing special. This is how we work to get variation and use all senses.
- Practical ones, like the camera that did not work. Our students are so used to go outdoors so there are never any problems with it.
- Nothing. We work like this all the time.
- Few, because we have done them before, but it is always difficult to get enough with grown-ups.

Korean teachers

- There are difficulties to control student field work, and to have reasonable assessment of the activity.
- It is hard to have enough time to conduct survey at a time and students have a schedule to follow everyday. This class can be taken place special day when they do not have normal schedule.
- Students have to spend their most time of distributed to history subject to learn the national history in text book. Local history has not yet handled in textbook mandatory to students.
- There is not enough time to have field work and teachers can not control the security when the field work is taken place.
- I felt limitation of time and space to have a field work with students.

- It took much time to have an activity as well as to follow the procedures for permission because teachers had to obtain approval from the school and parents.

- Every student can not visit the center because the limitation of space.

- They can not accommodate all students in the local community. Lack of the place to have these activities

6.2. Summary from the answers about actual obstacles in the present school scene

The Swedish teachers generally said there are few problems to have the activities while the Korean teachers mentioned ‘hard to control students and evaluation’, ‘limitation of time and space’, and ‘hard to obtain approval from school and parents’ as obstacles exist in Korean present school scene.
CHAPTER IV. DISCUSSION

I have presented the results from research and now let us examine and discuss them. I will divide 5 parts to analyze the results. At first 1) I will compare the conditions in which the teachers from each country had done the activity and reason why they chose one specific activity among the 17 that I offered. And then 2) through examining the results of level of integration and relevancy to sustainability and analysing the process according to the 4 ways of knowing, I will discuss how the local community based outdoor activities can connect to sustainability as a main research question. 3) I will summarize the advantages/disadvantages of the activities and at last, 4) actual obstacles that the teachers confront when they want to do local community based activities as their social studies’ class. The discussion highlighted the analyses between the local community based activities and sustainability in the second part. In addition I will offer a 5) methodological limitation applied in my research

1. Comparing the Conditions and the Choice of Reasons

The most obvious difference between the Swedish teachers and the Korean teachers, when doing the activities, is the number of students they had to lead. Comparing to the number of the Swedish students, the Korean teachers had to have the activities with relatively big groups of students. I think this fact connecting to the answers from the Korean teachers about the obstacles to have these activities, because they mentioned that it is difficult to control students, to secure students from danger and even there is lack of space and place to have field work with many students. Nevertheless, some Swedish teachers did the activities with student having learning disabilities and one
teacher who has about 60 students in her class divided the student to different groups and let them do different activities. They did not mentioned the necessity to control students as obstacles and students could disperse to many different places to do various activities so there were also enough spaces and places for students.

The Swedish teachers did not feel that they had to be where and when their students did the field work, even they think their absence makes students independent. On the other side, the Korean teachers’ attitudes contrast with Swedish teachers. Korean teacher said they had to be where their students were and control and supervise them.

When I delve into the reasons why they chose one specific activity, I can also found out one clear difference between the Swedish teachers and the Korean teachers. In the case of the Korean teachers, they chose the one activity that could give students special experiences and opportunities that normal classes can not offer. On the other hand, the Swedish teachers mentioned that it fits well their program or their classes as the reason why they selected one specific activity. I think that they might use the activity within context of their classes and one of them put variation to fit in her usual class. This variation is hard to find in the process of activity that the Korean teachers had.

2. Local Community Based Outdoor Activities and Sustainability

As a primary research question, I demonstrated “How do local community based outdoor activities contribute to learn sustainability?” I set three approaches to examine this question. As the first approach, I asked the level of integration through doing the one specific activity and the whole activities. The importance of the subject integration
was presented in third part of literature review and through high level of integration in many subjects in social studies, students can have a point of view to look the world as a whole. As the second approach, I asked teachers’ opinions about the relevancy between the activities and sustainability by suggesting the principles. This approach can be relatively direct compared to the other 2 approaches. As the third approach, I asked teachers to analyze the activity with 4 ways of knowing. This approach is the trial to delve into the activity as itself in terms of process.

2.1. The level of integration

As we see the results in <Figure 3>, I can not remark the level of integration by one certain activity is high or low. The answers from teachers are not concentrated on a certain inclination. Between the Korean teachers and the Swedish teachers, there is a slight difference that is Korean teachers tended to think that the level of integration is low. However, the result from the second question asking the level of integration by the whole activities is meaningful when compared to the result of level of integration by one activity. The answers are shifted to high and the percentage of high and very high is over than half of answer. There is no teacher whose answers’ direction shifted from high to low in those two answers. Still Korean teachers show negative response about level of integration even by the whole activities compared to Swedish teachers and the only teacher who answered low was a Korean teacher.

The tendency of answers shifting toward high from the first question to the second question shows that integrating subjects can be achieved through the series of the activities not only by one activity. This tendency is common between the Korean and
the Swedish teachers. It might be inferred from these answers that they feel the necessity of continuous activities to achieve integration of subjects.

2.2. Relevancy to sustainability

Teachers’ opinions can be summarized to two word; sense of place and direct experience about the activities in terms of relevancy to sustainability. I can not claim the teachers agreed that the local community is the good place (the term Swedish teachers used is ‘real world’) to start learning for sustainability because they did not mention connection between the principles and the activities exactly. One problem of this question is that teachers felt difficult to answer this question. Some teachers left blank space, even after I explained about the principles and encouraged them to answers. I realized that “sustainable development is a difficult concept to grasp” (Nicol, 2001, p.188)

However, I can find out a big difference between the two teachers. I realize that the Swedish teachers have their own opinions about sustainability because they tried to discuss and analyse principles from their viewpoint of sustainability when they fill out the answer. They point out the pertinence of usage of word in principles for example one of the Swedish teachers raised an objection to use the term ‘quality’ and claimed that learning the way of sustainable living in school precedes learning in work place or home.

On the other hands, Korean teachers did not show any objection and their own opinion about the principles. They accommodate the principles and try to compare the
educational effect with lectures and text books.

2.3. Process of the activities according to 4 ways of knowing

2.3.1. Experiential knowing

As the first process of activity, most teachers from both countries recognized direct experience using all senses based on the places in local community. “Direct experience is foundational to experiential knowing.” (Capra, 1996)\(^{10}\) but most experiences were concentrated on visual things or emphasizing the act of observing and some teachers regarded behavior of visiting some place as itself as experiences.

Experiential knowing motivate students for learning as Nicol(1994) said “from an educational point of view it can provide inspiration to learn more.” ,“Where the stimulus around you is sufficient for learning to take place.” (Nicol, 1994, p.11) In the case of motivation, the teachers already planned the subsequent steps of learning to progress for students. Therefore, students could not be motivated by themselves from their experience. They already knew next task they had to do so their experience had to be limited. Even though they had inspiration from the activities, teachers and I could not find out what it was exactly. Only in the case of the Korean students, did visiting new place out of classroom allow students to be exciting because they had not been familiar with being outdoor.

According as Nicol(1994), Experiential knowing is based on the assumption that “there is no way to separate feelings from knowledge, or object from subject; there is no way to separate mind from body from its ecological and emotional context.” (Nicol, 1994, p.7)

\(^{10}\) Nicol, 1994, p.7
That is experiential knowing should include feeling or emotional aspects from the activities. “Emotional association with the object of study” is also cited by ‘a direct encounter.’ (Sandell et al, 2003, p.202) Nevertheless, neither did the teachers from the both countries state any emotional aspects nor did I find any processes that combined experience and emotion aspects during observing the activities. Therefore, it seems to be reasonable to suppose that emotional aspects are too individual and private thing to be perceived by others.

2.3.2. Presentational knowing

Most teachers designed the activities including the process of presentation after the outdoor field work. Some teachers made students make maps and papers for guiding the place they had visited and the power point files and perform the reenactment drama. One Korean teacher asked them to write reflection about the activity they had. “This form of knowing allows learners to reflect on their experiences.”(Nicol, 1994, p.8) and “to internalize the experience and then bring it forth as either talk, text or image.”(Nicol, 1994, p.8) Consequently, these follow – up process “enhance learning through recall” (Nicol, 1994, p.11)

In fact “the role of the teacher is essential because one of the problems with experiential knowing is that it has clear intrinsic moral value; it means experiential knowing is a process which hives no guidance as to what is a quality experience.” (Horwood, 1991, p.23)  But there is no answer that appears the teacher’s role as a guide when students

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11 Orr, 1993, p.17
12 Nicol, 1994, p.8
reflect their experience. As I observed some classes, teachers tried not to interfere students’ group working and set their position as a facilitator. This is stated by Curran (Burriss & Boyd, 2005, p.114) that “The instructor’s role focuses less on lecturing and more on facilitating and guiding students in their endeavors to discover, analyze and interpret.”

2.3.3. Propositional knowing

Most teachers offered lectures to students as the process of propositional knowing. The lectures took place either before or after field work and teachers delivered concepts, theories, instructions and basic skills students had to know when conducting field work, as Nicol (1994, p.9) suggested “Propositional knowledge provides the pupil with another form of knowing not accessible by direct experience alone.”

However, the 7 teachers of 14 left blank space for this process. This considerable number of no response can be supposed two possibilities. One possibility is to assume that teachers did not try to broad students’ experience to scale of society as Nicol(1994, P.9) suggested like follow: “In terms of the propositional knowing knowledge would consist of understanding ecosystems, the principles of organization of ecological communities and the social and economic impacts on them from human communities.”

Another possibility is that teachers could not recognize the prepositional knowing with the question that I offered. For example the activity ‘Find a history in the community’ after students visited the place, they had to read books and search in the internet to find historical events connecting to the place. But the teacher led the activity answered she did not find any process relevant to the prepositional knowing. Therefore, the teachers
more concentrated on or emphasized the experiential part of learning than the sequel process of learning such as something about through ideas and theories, and expressed in abstract language or mathematics (Nicol, 1994, p.9) when it comes to outdoor class. But as Stone (Burriss & Boyd, 2005, p.102) insisted “Students learn not only by experience, but also from experience; a search for meaning must accompany the experience.” So it is important for students to connect their experience to propositional knowledge.

2.3.4. Practical knowing

Depending on the activity, it is clear whether there is practical knowing or not. Some activities had problem-solving elements in the activity so students found out problems, explored alternatives and decided action they would do as Nicol maintained “You take actions in line with your beliefs and based on your knowledge of a given situation.” (Nicol, 1994, p.11) Those activities such as ‘environmental quality survey’, ‘transportation needs’ and ‘trash of the community’ required students to have critical mind and aware of the issue involved problems. These activities well applied to “making the links between what we learn and what we do.” (Huckle & Sterling, 1996, p.216) But the other activities such as ‘visiting the Cloetta Center’ and ‘treasure hunt’, there is no necessity to have action.

I think the activity for sustainability must have the process of practical knowing because I agree the statement that “A deep ecological awareness can be realized through this four-point epistemology where valid action (practical knowing) must be grounded in
our experiential, presentational and propositional knowing” (Nicol, 1994, p.10) and “main goal of education for sustainable development – create citizens who can actively participate in democratic debates concerning environment and development” (Sandell et al, 2005, p.231)

2.3.5. Overall analysis of 4 ways of knowing as a whole process.

To prove that the local community based outdoor activities are the good way of learning for sustainability, I have analysed the activity with the 4 ways of knowing from the teachers’ answers and my observation because “Through experiential, presentational, propositional and practical ways of knowing outdoor education can take its place in delivering outcomes relating to sustainability education, sustainable living or environmental education.” (Nicol, 1994, p.12)

Of the 13 activities that teacher carried out, 5 activities satisfy four ways of knowing from teachers point of view. There are ‘signs in community’, ‘to visit historical places in the community’, ‘Compare the places’, ‘transportation needs’ and ‘trash of the community’. Especially only practical way of knowing is verifiable whether the specific activity has the process of requiring action and participation from students.

However, it is hard to decide which specific activity is perfectly proper to learn for sustainability because it depends on how teachers organize the activity, put variation to the activity and how they interpret the activity.

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13 Nicol, 1994, p.10
3. Advantages/Disadvantages in Local Community Based Outdoor Activity

When it comes to advantages, the Swedish teachers emphasized the direct experience using senses to ‘real world’, that is experiential learning as Stone(2005, p.102) cited “We must allow our children to make real decisions based on real world problems.” However, one Swedish teachers who are very accustomed to this kind of activity and plans every his classes in this way said advantage of the activity depend on teachers not activity as itself. He thinks successful activity for students is possible when teachers know students well and organize best way of teaching method for student. In the case of the Korean teachers, they relatively more focus on the distinction of the activities that normal classes can not offer. To put it concretely, they are ‘direct experience’, ‘interest and affection to their community’, ‘local history not offered in text books – “experience not only event but also emotion behind the event” (Burriss & Boyd, 2005, p.107)’, ‘process of field work’, ‘experiencing a good action connecting to sustainability’ and ‘understanding interaction between human and environment.’

Most teachers from the both countries did not answered about the disadvantages of the activities. One Swedish teacher pointed out a problem in transportation they had to use to visit place. The Korean teachers mentioned about ‘a sense of incongruity’ when they had a field work in residential area where students live and ‘regional self-centeredness’ when they found solution for their community. One Korean teacher considers about proficiency to execute the activity enough to motivate students and offer the purpose of activity properly. Moreover, one Korean teacher concerns about the inefficiency of the activity, if the activity takes place only once as a special event without subsequent activities.
4. Actual Obstacles

There is a remarkable difference between the Swedish teachers and the Korean teachers, when it comes to actual obstacles to execute the activities. Most Swedish teacher felt no barrier to do the activity, while the Korean teachers mentioned many things not allow them to conduct the activity. ‘Lack of time and space’, ‘complicated procedure to get approval of doing activity from school and parents’, ‘insecurity and out of the control students’ and ‘incredibility of evaluating students’ are cited.

5. Methodological Concerns and Limitations

Three approaches that I applied to explore how the local community based outdoor activity contribute to sustainability have several limitations. At first, when it comes to using questionnaire, most teachers from the both countries said the questions about relevancy to sustainability and analyses of activities were difficult to answer even though I had tried hard to make easy questions for teachers. If I had had interviews with all 14 teachers and observed all activities, the results could be analyzed deeper and in more detail.

In the case of analyzing the level of integration, if follow-up question asking the reason why teachers choosing the certain level of integration had offered, I could examine how teachers think about meaning of integration for sustainability.

One of the important things, when it comes to analyse the experiential knowing, I should have asked is whether a certain process in activity corresponding to experiential knowing motivates or gives students inspiration. This shortage of question in detail
indicates the lack of psychological analysis in the process of activities.

I should have asked role as a leader to enhance presentational knowing because when students express their experience, teachers’ guidance through communication is necessary like follow: “this interactive relationship between the learner and teacher is the starting point of concrete experience.” (Nicol, 1994, p.8)

Moreover, there had been still language barrier between me and the Swedish teacher, especially when I attended their classes, it is difficult to catch the part of prepositional knowing because I could not understand the lectures.
CHAPTER V. CONCLUSION

I have explored how local community based outdoor activities contribute to education for sustainability. The conditions of activities and analyses are offered by teachers from the two countries that is Sweden and Korea. I had supposed before I conducted research that they have different educational circumstances and system, so their opinions and thinking about the activities would be different. They provided broad point of view about the activities as I had expected. Nevertheless, they agree that the activities affect students in positive way by offering direct experiences and a sense of place which are essential contents in education for sustainability. Especially the obstacle Korean teachers indicated are meaningful to change the learning conditions in schools in Korea. This change can be connected to encouraging further study about “adopting whole school model.” (SOED, 1993)\(^{14}\)

The answers about the level of integrating subjects in social studies through the activities from the 14 teachers shows that the activities are not ineffective to integration of subjects, even though the amount of answers are not enough to make generalization. Besides, the activities I suggested are limited in boundary of only social studies in terms of integration. Therefore further studies about integration in all subjects and disciplines will be required to achieve interdisciplinary education. The way of integration must be “transdisciplinary” (Huckle & Sterling, 1996, p.23); “means breaking free of disciplinary perceptions and traditions to create new meanings, understandings, and ways of working.”

From the teachers’ opinions in relevancy to sustainability connecting to the activities,

\(^{14}\) Nicol, 2001, pp.199
we can regard the community as a good place and ‘real world’ that offers experiential learning to students. Furthermore, the teachers agree that this way of learning gives students affection on their community. I can state that students’ interest and affection on their community can be conducive to live in sustainable way.

The analyses with 4 ways of knowing offered a good opportunity to examine how the each process of the activities operates students’ learning for sustainability. From these analyses, I found out that the teachers can put variation to the process of experiential, presentational, propositional and practical ways of knowing depending on how teachers play a role and manage the whole activities. Even from the same activity, the teachers gave different process suitable to the 4 ways of knowing. That is, whether the activity “through 4 ways of knowing can take its place in delivering outcomes relating to sustainability education, sustainable living or environmental education” (Nicol, 1994, p.12) or not is mainly up to teachers role and proficiency not only to what activity they do. Therefore, I suggest that there should be more study to cultivate teacher’s competency as well as to develop good activity to accomplish education for sustainability.

Even though, local community based outdoor activity in this thesis has mainly focused on sociological issues and political inquiry and what seems to be lacking is “psychological concerned in deep ecology” (Nicol, 2001, p.177), I hope local community based outdoor activity plays a significant role for students to be active citizens who have thorough concerns about effects connecting to what they eat, what they wear and what they consume through starting to take care of their local region with viewpoint of various dimension that is, “not simply as the ‘green’ environment but to
develop programmes which include political and socio-economic aspects.” (Nicol, 2001, p.230) Simultaneously, it calls for further study to delve into the psychological effects on students through activities for sustainability.
REFERENCES

Books:


APPENDICES

APPENDIX A - Community based Outdoor Activities (English Version)

APPENDIX B - Community based Outdoor Activities (Korean version)

APPENDIX C – Questionnaire for Swedish teachers

APPENDIX D – Questionnaire for Korean teachers

APPENDIX E – Pictures of observation
APPENDIX A - Community based Outdoor Activities (English Version)

Community based Outdoor Activities

Theses 17 activities are based on local community regarding places and social studies’ theme. General objectives of them are like follow:

General objectives
A) To demonstrate an interest in, and an understanding of, local history.
B) To show an understanding of democratic procedures and group processes.
C) To explain relationships between human kind and the natural environment.
D) To demonstrate an understanding of some of the socio-emotional needs of humans.
E) To describe how local government functions.

1) Choosing Important Places in My Community

Aim of the activity
- Students can aware various functions of places in the city.
- Students can show the people’s main behavior of places.
- Students can present the functions and explain why the places they chose are important.
- Students can get local knowledge relating to the places.

Process of the Activity

Main part of this project is present the function of places. Through acting the main behavior of the place, student can perceive the characteristics of the places.

1. Building the group
2. Hand out Map of community and decide boundary of activities
3. Discuss where the group’s place is.
4. Design the questionnaire for street interview.
5. Field work – investigate people’s aspect of behavior and street interview and express main activities
6. Make a picture of place and actors
7. Present with the picture

**Building the group**

<table>
<thead>
<tr>
<th>Position (numbers of students)</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director (1)</td>
<td>Lead the discussion about choosing place, Manage and prepare overall activities, and make a picture</td>
</tr>
<tr>
<td>Actor (2-3)</td>
<td>In the right place, express or act people’s reaction or behavior</td>
</tr>
<tr>
<td>Presenter (1)</td>
<td>Present why the group choose the place and why the place is important and tell the history about the place</td>
</tr>
<tr>
<td>Designer (1)</td>
<td>Design the questionnaire for street interview – What is the propose of using this place and problems of this place</td>
</tr>
</tbody>
</table>

2) **SIGN POST (Smith, 1989)**

**Aim of the activities**

- To design and construct a sign post, which should point to a number of places marked on the map
Instruction of constructing a sign post
- The completed sign post should point accurately to at least ten villages, or places of interest
- Give clear indication of place names, compass directions and direct distance in kilometers.
- Dead stick must be used for constructing a sign post and after making it, removed by students.

3) Environmental Quality Survey (Smith, 1989)

Aim of the activity
- The aim of this survey is to compare the environmental quality in different areas.
Process of the activity

1. Building the group
2. Hand out Map of community and decide villages where they do a survey
3. Field work – visit the village and do a survey.
4. Rewrite the list of 20 factors in your order of importance.
5. Making the graphs or diagrams to show the results of your survey.
6. Write a letter to your local council, suggesting realistic way of improving the environment in your survey area.

Example Survey Frame

<table>
<thead>
<tr>
<th>Name of street :</th>
<th>Names of students :</th>
</tr>
</thead>
<tbody>
<tr>
<td>Show your opinion of the environmental quality of this street by checking the boxes below</td>
<td></td>
</tr>
<tr>
<td>Factors</td>
<td>High Low</td>
</tr>
<tr>
<td>State of repair</td>
<td>Greenery</td>
</tr>
<tr>
<td>Character of buildings</td>
<td>Surrounding land use</td>
</tr>
<tr>
<td>View form windows</td>
<td>Traffic</td>
</tr>
<tr>
<td>Daylight through windows</td>
<td>Street lighting</td>
</tr>
<tr>
<td>House entrance designs</td>
<td>Outside noise level</td>
</tr>
<tr>
<td>Car space</td>
<td>Air cleanliness</td>
</tr>
<tr>
<td>Vandalism(lack of – much)</td>
<td>Shop access</td>
</tr>
<tr>
<td>Privacy</td>
<td>Public transport</td>
</tr>
<tr>
<td>Garden size</td>
<td>Pavements</td>
</tr>
<tr>
<td>Neighbourhood play areas</td>
<td>Other(specify)</td>
</tr>
<tr>
<td>Entertainment</td>
<td></td>
</tr>
</tbody>
</table>

4) The Shopping Bag (Sandell, K., Ohman, J., & Ostman, L., 2005)

Student follow the chain of production in reverse form the dinner table to actual producers, i.e. the farmers via supermarkets, wholesalers etc. According to the guidelines in the project, students research question such as elements that influence production, distribution, storage etc. as well as how each of these stages affects the environment.
**Aim of the activity**
- Students are given the opportunity to integrate issues concerning ecology, economy, politics and social development.
- Give general insights into situations which will have an influence on students’ lives in the future.
- Students also have the opportunity to actively participate in the areas of production concerning the project.
- The students are encouraged to be both active and responsible in their approach to their own development and that of fellow students. The teacher’s role in the project is to offer guidance when necessary.

**Process of the activity**
1. Build the groups
2. Give to students general information such as fertilizer emissions, species depletion, pesticides, agricultural and economic history, social development, transportation etc.
3. The groups select a category of food – cereal products (bread, pasta), fruit and vegetables, meat, and dairy products.
4. Two bags of shopping back are divided among groups of students.
5. Prepare the product and eat the food.
6. Decide on a plan of action – which aspects of the environment should be addressed, making a contact list of people/organizations, making a list of sources for getting product information etc.
7. Contact local supermarkets and convenience stores and try to find out if there are any problems relevant to the group’s chosen products.
8. Students follow the chain of production to the wholesalers, manufacturers and finally the producers/farmers.
9. Visit farmers, these visits allow students first hand knowledge of how farmers see environmental issues, economics, agricultural policies etc.
10. Arrange the field trips to food production plants, dairies and slaughter houses/butchers
11. Keep a log of their activities, which may vary from group logs to individual logs
12. Make a final reports and presentation

5) *Land for Development* (Burriss, G. K. & Boyd F. B., 2005)
**Aim of the activity**

- Students can suggest a proper way of development of land and investigate the effects of the development
- Students can understand the conflicts in terms of using land.

**Process of the activity**

1. Build the groups.
2. A field visit may be arranged to make notes and sketches, and to take photographs of the site. These would be useful to help build up opinions about the character and quality of the area.
3. In preparation for a public inquiry (role play exercise), each student would need to decide which of the characters he or she is going to be such as representatives of farmers union, local cheese dairy, environmental group, energy department, miners union, employment agency, local unemployed group and chairman.
4. An appointed chairman would introduce the speaker, give reasons for the public inquiry, and give a final summary. Each spokesperson may have an adviser. Speakers should be prepared to state their case and defend their case if questioned.
5. Collect all notes, sketches, photographs, maps and newspaper cuttings to make up a scrap book following the progress of the development.

6) **To visit cemetery** (Hammerman, D. R., 2001)

Many communities have an old or historic cemetery nearby that can prove to be very educational by revealing much information about the culture of the people who lived in the area years ago.

**Aim of the activity**

- Student can acquire the way of inquiry to find out historical fact
- Student can understand the importance of historical relic as a object of investigation

**Process of the activity**

1. Build the groups
2. Recognizing the fact that burial grounds have always been considered sacred, visitors should treat a cemetery with respect and care.

3. Seek answer to the following guiding questions:
   a. When was the cemetery founded?
   b. Who was the first person buried there? When? What was the age at the time of death?
   c. How long has it been since someone was buried in the cemetery?
   d. What kinds of markers are used on the graves? Are these materials local to the area or transported from elsewhere?
   e. Can the history or family tree of certain families be traced from the grave markers?
   f. How many different nationalities or countries are represented within the cemetery?
   g. What was the average life span of people in this community?
   h. Is there any evidence of plagues, epidemics, or wars? If so, what is it?
   i. Over the years, what were the changes, if any, in the types of markers used? In the designs? In the shapes? In the styles of epitaphs?
   j. Are all the inscriptions visible? What kinds of monuments show weathering? (Making rubbings of inscriptions on gravestones might be an interesting activity.)
   k. Do the graves all face the same direction? If so, why?
   l. Who lived longer in this community, men or women?
   m. Can the economic status of a family be determined in any manner?
   n. What feelings do you have about the people who are buried in this cemetery?

4. Make reports

7) Find misused places

Aim of the activity
- Student can point out misused places in the community
- Student can find out the reason of the problem in places and suggest solutions

Process of the activity
1. Build the groups
2. Field trip to find misused place and choose one place.
3. Conduct street survey and find the reason of misusing
4. Through group discussion, suggest solutions.

8) Making fund (Hammerman, D, R., 2001)

Aim of the activity
- Student can understand the value of the recycling by doing the part of job of recycling
- Student can find out the behavior or action conducive to sustainability in reality.

Process of the activity
1. Build the groups
2. Choose the area to collect recycling stuff
3. Bring the recycling stuff to a recycling center and change to money.
4. Donate money to support a conservation project or environmental organization

9) Compare the places (Hammerman, D, R., 2001)

Aim of the activity
- Student can understand difference among the places in community

Process of the activity
1. Building the group
2. Choose two places compare (e.g. residential area and industrial area, Business area and Park)
3. Investigate the condition of area such as noise, quality of air, number of people, vehicle passing that area and trees, and overall atmosphere)
4. Compare the two areas and presentation

10) Trash of the community (Hammerman, D, R., 2001)

Aim of the activity
- Student can understand the process of trash
- Student become to know how huge amount of trash must be treated in the community
Process of the activity
1. Build the groups
2. Try to calculate the amount of trash in the community in a day and in one week.
3. Make a questionnaire to ask people in company that treat the trash
4. Visit the company that treat trash of the community
5. Conduct interview to people work in the company with question like follow:
   - Is the garbage and trash dumped? Buried? Burned? Or what? What are advantages/disadvantages of the method used in your community?
   - Does your community have curbside pickup and a recycling facility?
   - Are the waste materials sorted in any manner? If so, how? Are sorted materials recycled? Does this process save any money?
6. Make a report

11) Find a history in community (Burriss, G. K. & Boyd F. B., 2005)

Aim of the activity
- Student can aware the importance of local relic
- Student can make a drama connecting to historical site in the community

Process of the activity
1. Build the groups
2. Choose the historical site by group discussion
3. Investigate the history and make a drama
4. Have a performance in the historical site

12) Air Quality in Community (Hammerman, D. R., 2001)

Aim of the activity
- Student can understand the necessity of efforts to keep clean air.
- Student can understand what affect on the quality of air.

Process of the activity
1. Build the groups
2. Take photographs from the same viewing spot on a clear day and then on a smoggy day.
3. Visit the air pollution control district office for your city or area
4. Investigate about air in their community like follow:
   - How is the quality of the air determined (measured)?
   - What are the sources of these pollutants?
   - How does the quality of air vary during the day? Week? Month?
   - What are the effects of air pollution upon people? Plants? Manufactured structures?
   - What influence do weather and topography have upon air pollution in your area?
   - What is the financial cost of air pollution per person per year?
   - What is being done to control air pollution in your area? By which agencies? At what cost? How effectively?

13) Transportation Needs (Hammerman, D, R., 2001)

Aim of the activity
- Student can understand the importance of transportation
- Student can find out which transportation is good for sustainability

Process of the activity
1. Build the groups
2. Choose major traffic intersections or arteries near your school to investigate
3. Investigate with following questionnaire:
   a. How many vehicles pass this point in one hour?
   b. How many of these vehicles carry one passenger?
   c. How much noise is there at this intersection? (If possible, try to measure with a sound-level meter.)
   d. Can you smell any fumes from the vehicles?
   e. In your opinion, can this intersection/street carry this amount of traffic in an adequate manner?
4. Visit the office of the Director of Transportation to find out what plans are being developed to handle mass transportation of people in your community in the years ahead. Are they considering any alternate forms of transportation? Bicycle lanes, for example. If your community already has a
system of mass transportation, are the citizen satisfied with its performance? Who supports the system financially? How much did it cost to establish the system? How many barrels of oil per year does it save?

5. Write a report

14) Open – Space Planning (Hammerman, D, R., 2001)

Aim of the activity
- Student can understand the necessity of open-space for people to have leisure.

Process of the activity
1. Build the groups
2. Plan a visit with the Director of Recreation and Parks or the City Planner to gather information about open space available to your city.
3. Investigation like follow:
   a. How many acres of permanent open space (e.g., military reservations; wildlife refuges; watershed lands; and city, county, state, or national parks) are available within a one-hour drive? One-half-day drive? One-day drive of your neighborhood?
   b. Does your community have any policies regarding open space and recreation lands for the public? If so, how many acres of public recreation open space are recommended for every 1000 persons?
   c. Have any studies been conducted to determine the recreation needs of the people in your area (e.g., hiking, camping, boating, fishing, horse back riding, etc.).? Are there sufficient space and facilities to meet these needs?
   d. Are there any plans on the drawing board for future needs? For the year 2025?
   e. Has your community considered or established an Urban Growth Boundary? What would be the advantages or disadvantages of doing so?
4. Make a report

15) Energy Needs (Hammerman, D, R., 2001)

Aim of the activity
- Student can understand how energy is produced
- Student can aware the necessity of action to save energy

**Process of the activity**
1. Build the groups
2. Take a field trip to the offices of the utility company that serves your community.
3. Talk with the information officer, and gather information that will answer the following questions:
   - How many customers does the company serve?
   - What is the cost per kilowatt-hour for electricity? Per therm for natural gas?
   - Are there any incentives offered by the utility company for the customer to conserve energy? If so, what are they?
   - What energy source or sources are utilized by the company to generate electricity? If more than one source is utilized, what percentage of electricity is produced by each of the various sources?
   - Does the company have any plans for generating electricity by alternative methods? If so, which ones? Solar? Wind? Other?
   - What are the long-term energy needs projected by the utility company? How does the company plan to meet them?
4. Make a report

16) **Main street in your community** (Hammerman, D, R., 2001)

**Aim of the activity**
- Students can understand the location of the various city function.
- Students can make a map.

**Process of the activity**
1. Build the groups
2. Choose one street that students think important in their community.
   - Taking a picture and decide thing putting on the map in the street like follow:
     - Places you like and dislike
     - Landmarks – shops, pubs, your homes, youth contre etc.
     - Safe and dangerous places
3. Making a map of streets: do not copy from an existing map, accuracy and scale are not important. The idea is to produce the group’s perception of their
community

17) Treasure hunt (Burriss, G. K. & Boyd F. B., 2005)

Aim of the activity
- Be introduced to field observation methods and map-making
- Demonstrate proficient skill in determining the differences in the basic directions of left, right, front, and back
- Demonstrate knowledge of the link between basic directions and cardinal directions of north, south, east, and west
- Be introduced to the compass and learn how to orient oneself by using the device
- Conduct meaningful field observations in a designated playground area as student first verbalizes, then draws, the physical and cultural characteristics of the field observation area.

Process of the activity
1. Build the groups
2. Decide the range of the area that the activity will be taken place
3. Have each group take a small object, hereafter known as a “treasure,” from a box, without letting any other group see it. The group will show its object to the teacher only, and it will be recorded.
4. Explain that each group will hide its treasure somewhere in the area they decided before and only they and the adults will know what the treasure is and where it is hidden. It is task of another group to find the objects, using the maps the “hiders” will draw and provide
5. One of the members of each group hides the treasure in the area.
6. Instruct how students make maps regarding direction, scale, landmark and road and street.
7. Make maps
8. Exchange the maps among the groups and find treasure
9. Bring the treasure to teacher
10. Reflect about making maps and evaluate other groups maps regarding precision to find treasure
APPENDIX B - Community based Outdoor Activities (Korean version)

지역 사회 기반 현장 학습
다음에 제시된 17 가지 활동들은 지역사회를 기반으로 하여 사회 교과의 내용과 연계된 현장학습입니다. 이러한 현장 학습의 총괄적인 목표는 다음과 같습니다.

총괄 목표
A) 지역사회의 역사에 대한 관심을 갖게 하고 이에 대한 이해를 증진시킨다.
B) 민주적인 절차와 단체에 대한 이해를 증진시킨다.
C) 인간과 환경과의 관계를 설명할 수 있다.
D) 인간의 사회적 관계를 설명할 수 있다.
E) 지방 정부의 역할과 기능을 설명할 수 있다.

1) 지역에서 중요한 장소 선정하기

활동 목표
- 도시 내 장소들의 다양한 기능을 이해 할 수 있다.
- 장소에서 사람들의 행동방식을 나타낼 수 있다.
- 장소의 기능을 발표하고 선택한 장소가 중요한 이유를 설명할 수 있다.
- 장소와 관련하여 지역사회에 대한 정보를 획득 할 수 있다.

활동 과정
이 학습의 주요 활동은 장소의 기능을 발표하는 것이다. 장소에서 이루어지는 사람들의 행동 양식을 발표 함으로서 학생들은 장소의 특징을 파악할 수 있다.

1. 그룹 조직
2. 지역의 지도를 나누어 주고 활동이 이루어질 장소의 범위 선정
3. 그룹별로 장소를 선정하기
4. 장소에서 이루어질 인터뷰 질문지 작성하기
5. 장소에서 이루어지는 사람들의 행동 양식을 관찰하고 질문을 작성하기
6. 장소에서 이루어지는 사람들의 행동 양식을 확인한 후 사전 활동하기
7. 사진과 함께 사람들의 행동을 장소의 기능과 연계하여 장소 선택의 이유를 발표하기

그룹 조직

<table>
<thead>
<tr>
<th>역할(학생수)</th>
<th>활동 내용</th>
</tr>
</thead>
<tbody>
<tr>
<td>감독(1)</td>
<td>장소 선택 토크의 사회자,전반적인 활동을 지휘하고 준비하기,사진 촬영하기</td>
</tr>
<tr>
<td>연기자 (2-3)</td>
<td>선택한 장소에서 사람들의 행동 표현하기</td>
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<tr>
<td>발표자 (1)</td>
<td>장소의 선택의 이유와 기능, 사람들의 주된 행동 양식 설명하기</td>
</tr>
<tr>
<td>기획 (1)</td>
<td>선택한 장소를 이용하는 이유와 장소의 특징을 묘는 길거리 인터뷰 질문 작성</td>
</tr>
</tbody>
</table>

2) 이정표 만들기 (Smith, 1989)

활동 목표
- 다양한 지도에 표시된 지역들을 표시한 이정표를 만들 수 있다.

이정표 제작의 지침
- 완성된 이정표는 최소한 10 개 이상의 지역 혹은 장소를 나타내야한다.
- 이정표에는 장소의 이름과 정확한 방향과 거리를 나타내야 한다.
- 이정표 제작 후 학생들이 직접 이정표를 수거하고 주변정리를 한다.

3) 환경 평가 조사 (Smith, 1989)

활동 목표
- 지역사회 내의 다양한 구역의 환경의 질을 평가하고 비교해 볼 수 있다.
활동 과정
1. 그룹편성
2. 시 규모의 지역 지도를 나누어 준 뒤 소규모 지역(동, 읍, 면 단위)을 조사 구역으로
   선정한다.
3. 지역 방문 뒤 조사 실시
4. 조사 항목 2 가지를 그룹토의를 통해 우선순위를 정해 다시 작성한다.
5. 조사 결과를 표나 그래프를 통해 표현하여 다른 그룹과 비교한다.
6. 조사를 통해 발견한 문제점을 개선할 수 있는 방법이나 건의사항을 지역의회에 알릴 수 있는 편지를 작성한다.

조사 항목의 예
조사 지역의 다음 항목에 대한 상태를 판단하여 자신의 의견을 체크 한 후 조별 토의를
 통해 최종 평가서를 작성하시오.
(매우 나쁨 - 1, 나쁨 - 2, 보통 - 3, 좋음 - 4, 매우 좋음 - 5)

<table>
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<tr>
<th>조사 항목</th>
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<th>3</th>
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<td>녹지율</td>
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<td>지역 주변의 토지 이용의 적절성</td>
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<td>교통 시설물 상태(도로, 신호등)</td>
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<td>가로수의 밖기</td>
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<tr>
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<td>공기 청정도</td>
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<td>공공 시설물의 파손도</td>
<td>상업시설 접근도</td>
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<td>개인 사생활 보호 정도</td>
<td>대중교통의 편리도</td>
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<td>공원의 크기</td>
<td>인도의 보수 상태</td>
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<td>기타 항목( )</td>
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</tr>
</tbody>
</table>

4) 쇼핑백 (Sandell, K., Ohman, J., & Ostman, L., 2005)

학생들은 농부에서 도매나 소매 혹은 대형 할인 마트에 이르기 까지 식탁에서 생산지를
 통해 식품이 유통되는 경로를 거꾸로 추적한다. 이러한 활동을 통해 식품의 생산, 유통, 저장에 영향을 미치는 요소에 대해 생각하고 각 과정이 환경에 미치는 영향을 조사하게
 된다.
활동 목표
- 학생들은 생태, 경제, 정치 그리고 사회 전반에 걸쳐서 통합된 문제에 대해 생각해 볼 수 있는 기회를 갖는다.
- 학생들의 미래의 생활에 영향을 미치는 일반적인 통찰력을 제공한다.
- 생산과 관련된 문제에 대해 적극적으로 참여할 수 있는 기회를 갖게 된다.

활동 과정
1. 그룹 편성
2. 학생들에게 화학 비료의 살포, 종의 멸종, 살충제, 농경제의 역사, 사회의 발전과 운송에 관한 전반적인 정보를 제공한다.
3. 그룹 토의를 통해 각 그룹은 식료품의 종류를 선택한다. 예를 들어 빵, 국수, 과일, 채소, 고기나 유제품 등이 이에 포함된다.
4. 쇼핑백을 학생들에게 나누어 준다.
5. 식료품을 구매하고 그룹학생들과 나누어 먹는다.
6. 어떠한 환경적 영향에 대해 다른 것인지 그룹토의를 통해 결정하고, 방문하거나 연락할 사람이거나 기관 혹은 조직의 목록을 작성한 후 선택한 식료품의 원재료의 목록과 생산지를 기록한다.
7. 지역의 소개지역의 대형할인 마트를 방문한다.
8. 학생들은 도매에서 식료품 생장 그리고 생산지에 걸쳐 생산 과정을 추적 한다.
9. 식료품의 원료 생산지를 방문하여 환경, 경제, 농업과 관련된 정치적 문제 등을 농부와의 인터뷰를 통해 파악한다.
10. 식료품 생산 공장이나 낙농장 농장 혹은 도축장 등을 방문한다.
11. 답사 과정과 조사 과정을 기록한다. 개인별 보고서와 그룹별 보고서 두 가지를 작성한다.
12. 최종 보고서를 작성하고 발표한다.

5) 개발지역 선정하기 (Burriss, G. K. & Boyd F. B., 2005)

활동 목표
- 학생들은 지역의 발전 방법을 제시하고 발전에 따른 영향을 조사한다.
- 학생들은 지역의 발전과 연계된 다양한 이해관계를 이해하고 그 대립을 조사한 다.

활동 과정
1. 그룹편성
2. 지역에서 발전이나 개선이 필요한 곳을 선정하여 방문하고 그 지역을 그림으로 나타내거나 사진을 찍는다. 이 과정을 통해 학생들은 그 지역의 특징이나 기능을 이해하고 그곳에 대한 자신의 의견을 갖게 된다.

3. 공청회(role play)를 준비한다. 각각의 학생들은 자신이 어떠한 집단을 대표할 것인지 정한다. 이러한 집단으로는 농민집단, 환경단체, 정부의 에너지 관리부문, 광산 노동자 집단, 일자리 알선 업체, 지방 정부의 고용 부문 등이 해당된다.

4. 의장 즉 사회자는 각 집단의 발표자를 소개하고, 공청회를 갖게 된 이유 등을 설명한다. 각 집단의 대표자는 고문을 할당받게 되고, 고문의 역할을 맡은 학생들은 특정 문제에 대해 미리 선행학습을 해야 한다. 각 집단의 대표자는 지역개발에 대한 집단의 의견을 발표하고 고문의 도움을 통해 질문에 대비한다.

5. 학생들의 의견과 지역에 대한 이미지를 나타낸 그림, 사진 등을 모아 스크랩 북을 만든다.

6) 공동 묘지 방문하기 (Hammerman, D. R., 2001)
 많은 지역사회에는 오래된 역사적 묘지가 있다. 이러한 묘지는 오래 전에 살았던 사람들의 문화에 다양한 내용을 알 수 있으므로 교육적으로 매우 유익한 장소이다.

활동 목표
- 학생들은 역사적인 사실을 알아내기 위한 조사 방법을 알게 된다.
- 학생들은 조사의 대상으로서 역사적 유적지의 중요성을 이해하게 된다.

활동 과정
1. 그룹 편성
2. 묘지를 방문했을 때의 행동 지침을 제시한다. 묘지는 신성한 장소로서 경의를 표하고 보호해야 함을 숙지시킨다.
3. 다음의 사항에 대한 답을 조사하도록 한다.
   a. 묘지는 언제 세워졌는가?
   b. 이 묘지에 처음으로 매장된 사람은 누구인가? 그 사람이 매장되었을 때의 나이는 어떻게 되는가?
   c. 이 묘지는 몇 년 동안 사용되어져 왔는가?
   d. 묘지의 비석에는 어떠한 표시가 있는가? 비석은 다른 지역에서 운반된 것인가? 아니면 이 지역에서 생산 된 것인가?
   e. 비석을 통해 가문의 축복을 파악할 수 있는가?
   f. 얼마나 많은 외국인이 이 묘지에 매장되어 있는가?
   g. 이 곳에 매장된 사람들의 평균 수명은 얼마인가?
h. 전염병이나 전쟁의 흔적을 찾아 볼 수 있는가? 만약 있다면 어떻게 알 수 있었는가?

I. 세월이 흐르는 동안 무엇이 변화되었는가? 비석의 기록 방식에 변화가 있었는가?
   비염의 디자인이나 모양이 변화 되었는가?

j. 비문의 내용을 모두 읽을 수 있는가? 어떠한 종류의 묘비가 풍화의 흔적을 보여주는가?

l. 비석이 모두 같은 방향을 향하고 있는가? 어떤 방향이며 이유는?

m. 죽어서 묻힌 사람의 경제적 상태를 파악할 수 있는 증거가 있는가?

n. 이 묘지에 묻힌 사람들에 대해 어떠한 감정을 느끼는가?

4. 보고서 작성

7) 오용되고 있는 장소 찾기

활동 목표
- 학생들은 지역사회에서 잘못 사용되고 있는 장소를 찾아낼 수 있다.
- 학생들은 장소의 오용 이유를 찾아내고 해결 방법을 제시할 수 있다.

활동 과정
1. 그룹 편성
2. 답사를 통해 잘못 사용되고 있는 장소를 찾아낸다.
3. 길거리 인터뷰 등의 야외 조사를 실시하여 오용 이유를 알아낸다.
4. 그룹 토의를 통해 해결 방법을 제시한다.

8) 기금 조성하기 (Hammerman, D, R., 2001)

활동 목표
- 학생들은 재활용 활동을 통해 그 가치를 이해한다.
- 학생들은 지속 가능한 개발의 개념을 실제 상황에서 이에 공헌하는 행동을 통해 이해할 수 있다.

활동 과정
1. 그룹 편성
2. 재활용 가능한 물품을 수집할 장소를 선정한다.
3. 수집한 재활용 물품을 재활용 센터로 가져가 현금으로 바꾼다.
4. 돈을 환경단체나 환경보호 프로젝트에 기부한다.
9) 장소 비교하기 (Hammerman, D. R., 2001)

활동 목표
- 지역 사회 내에서 장소들 간의 차이점을 이해할 수 있다.

활동 과정
1. 그룹 편성
2. 비교할 장소들은 선정한다. 예를 들어 주거지역, 산업지구, 상업지구, 공원)
3. 소음, 공기의 향정도, 사람이나 자동차의 이동량, 녹지율이나 분위기 등을 조사한다.
4. 지역을 비교하고 발표한다.

10) 지역사회의 쓰레기 (Hammerman, D. R., 2001)

활동 목표
- 쓰레기가 처리되는 과정을 이해할 수 있다.
- 지역사회 쓰레기양의 규모를 파악할 수 있게 된다.

활동 과정
1. 그룹 편성
2. 매일 혹은 매주 지역사회에서 처리되어야 할 쓰레기의 양을 조별 토론을 통해 예측해본다.
3. 쓰레기를 처리하는 회사에 방문하여 그곳에서 일하는 사람들에게 물어 볼 질문을 작성한다.
4. 지역사회의 쓰레기를 처리하는 회사를 방문한다.
5. 쓰레기 처리 회사에서 일하는 사람들을 대상으로 인터뷰를 실시한다.
   - 쓰레기는 매장되거나? 태워지는가? 혹은 다른 곳으로 버려지는가?
   - 지역사회의 쓰레기 처리 방식의 이익과 불이익은 무엇인가?
   - 지역사회에는 재활용 시설들이 있는가?
   - 쓰레기는 어떠한 기준에 의해 분류되는가? 분류된 쓰레기는 재활용 되는가?
   - 이러한 과정이 쓰레기 처리 비용을 절감하는가?
6. 보고서 작성

11) 지역사회의 역사를 발견하기 (Burriss, G. K. & Boyd F. B., 2005)

활동 목표
- 지역사회의 역사 유적지의 중요성을 깨닫는다.
지역사회의 역사적 장소와 연관된 드라마를 만들 수 있다.

활동 과정
1. 그룹 편성
2. 그룹 토의를 통해 지역사회의 역사적 장소 선정하기
3. 장소와 관련된 역사적 정보를 찾아내고 드라마 대본 만들기
4. 선정한 장소에서 연극하기

12) 우리 지역의 공기 정정보 (Hammerman, D, R., 2001)

활동 목표
- 공기를 청정하게 하기 위한 노력의 필요성을 이해한다.
- 공기의 정정보에 영향을 미치는 요인을 이해한다.

활동 과정
1. 그룹편성
2. 같은 장소에서 대기의 사진을 찍어 맑은 날과 흐린 날의 대기의 상태를 사 진으로 남긴다.
3. 지역사회내의 대기를 관리하는 공공 부문을 방문한다.
4. 지역사회의 대기에 대한 다음의 사항을 조사한다.
   - 대기의 질은 어떻게 측정되는가?
   - 대기 오염의 근원은 무엇인가?
   - 대기의 질은 하루 동안 혹은 일주일 동안 혹은 한 달 동안 어떻게 변화하는가?
   - 대기의 오염은 사람, 식물 혹은 제조업에 어떠한 영향을 끼치는가?
   - 지역사회의 지형이나 날씨가 대기의 상태에 어떠한 영향을 주는가?
   - 연일 동안 대기 오염이 한 사람에게 주는 재정적 손실은 얼마인가?
   - 대기 개선을 위해 이루어지는 활동은 무엇이고, 어떠한 기관에서 이러한 일을 담당하며 그 비용은 얼마나요 얼마나 효율적으로 이루어지는가?

13) 대중교통의 수요와 공급 (Hammerman, D, R., 2001)

활동 목표
- 대중교통의 중요성을 이해할 수 있다.
- 어떠한 대중교통이 지속 가능한 개발에 바람직한지 생각해 볼 기회를 갖는다.

활동 과정
1. 그룹편성
2. 학교 주변에 교통량이 제일 많은 곳이나 교차로 혹은 간선도로 등을 방문하여 조사한다.
3. 조사 내용은 다음과 같다.
   a. 한 시간 동안 얼마나 많은 자동차가 지나가는가?
   b. 이러한 자동차들은 몇 명의 손맛을 태우고 있는가?
   c. 이곳의 소음은 얼마나 심한가? (가능하면 소음측정기를 사용한다.)
   d. 자동차로부터 매연냄새를 맡을 수 있는가?
   e. 이 곳의 교통량은 적정 수준인가? 정체가 심하지는 않은가?
4. 지역의 교통 관리국을 방문하여 대중교통 발전 대책이 있는지를 조사한다.
   대규모의 형태, 예를 들어 자전거 도로 등의 대중교통에 대해 고려하고 있는가?
   현재 지역사회 내에 있는 대중교통에 대한 시민의 만족도는 어떠한가?
   지역사회의 대중교통 시스템의 재정적 지원은 어디서부터 오는가? 얼마나 많은
   비용이 새로운 대중교통수단의 건설에 필요한가? 새로운 대안적 대중교통수단은
   얼마나 많은 화석 연료 즉 석유를 절약할 수 있는가?
5. 보고서 작성

14) 열린 공간 만들기 (Hammerman, D. R., 2001)

활동 목표
- 여가활동을 위해 열린 공간의 필요성을 인식 할 수 있다.

활동 과정
1. 그룹 편성
2. 지역사회의 공원을 관리하는 공공 부문을 방문하여 열린 공간 건설계획에 대한 정보를 조사한다.
3. 조사 내용은 다음과 같다.
   a. 근처에 열린 공간을 만들 수 있는 장소의 크기는 얼마 정도 되는가? (예: 군사용지, 야생동물 서식지, 지수지, 국립공원)
   b. 지역 사회 내에 열린 공간을 건설할 정책이 존재하는가? 그러나면 1000 명의
      사람의 기준으로 얼마 정도의 용지를 필요로 하는가?
   c. 지역사회를 대상으로 여가활동(하이킹, 캠핑, 낚시, 승마)의 필요성에 대한
      연구가 있었는가? 만약 있다면 현재 지역사회에는 이에 맞는 공간이나 시설물이 존재하는가?
d. 2025년까지 미래에 지역사회주민을 위한 열린 공간 건설에 대한 계획이 존재하는가?
e. 현재 지역사회는 도시화의 영향권 내에 있는가? 도시화 영향권 내에 속할 때의 이익과 불이익은 무엇인가?

4. 보고서 작성

15) 지역사회의 에너지 관리 (Hammerman, D, R., 2001)

활동 목표
- 지역사회에 필요한 에너지가 어떻게 생산되는지 이해할 수 있다.
- 에너지를 절약 해야 하는 필요성을 이해할 수 있다.

활동 과정
1. 그룹 편성
2. 지역 사회 내에 에너지를 공급하는 사무소를 방문한다.
3. 다음의 사항에 대해 사무소를 관리하는 사람과 인터뷰를 한다.
   - 얼마나 많은 사람에게 에너지를 공급하는가?
   - 한 시간 동안 적정수준의 전기를 공급하는데 드는 비용은 얼마인가? 얼마나 많은 화석 연료가 사용되는가?
   - 에너지를 아껴 쓰는 사람에 대한 유인책은 있는가? 있으면 어떠한 것들인가?
   - 에너지를 생산하기 위해 어떠한 연료를 사용하는가? 만약 한 가지 이상의 자원을 사용한다면 그 비율은 어떻게 되는가?
   - 태양에너지, 풍력발전 등 친환경적인 방법으로 에너지를 생산할 계획이 있는가?
   - 장기적인 에너지의 수요에 대한 계획은 있는가?
4. 보고서 작성

16) 가장 중요한 거리 (Hammerman, D, R., 2001)

활동 목표
- 도시 내의 기능에 따른 임지를 이해한다.
- 지도를 제작할 수 있다.

활동 과정
1. 그룹 편성
2. 지역 사회 내에 가장 중요하다고 생각되는 거리를 선정한다.
3. 거리를 사진으로 찍고 거리 지도를 제작할 때 표기할 항목을 선정한다.
거리에서 사람들이 좋아하는 장소와 싫어하는 장소
- 랜드마크: 쇼핑몰, 만남의 장소, 집, 역사적 장소
- 안전하거나 위험한 장소

4. 거리의 지도를 제작한다. - 기존의 지도를 그리고 복사하지 않는다. 정확도나 충족보다는 학생들이 거리를 인식하고 있는 것을 표현하는 것이 더 중요하다.

17) 보물 찾기 (Burriss, G. K. & Boyd F. B., 2005)

활동 목표
- 관찰하는 방법을 익히고 지도를 제작할 수 있다.
- 지도 제작에 필수적인 방향 설정을 능숙하게 할 수 있다.
- 기본적인 방향과 동서남북의 방향을 정확히 연결시킬 수 있다.
- 나침반을 지도 제작에 활용 할 수 있다.
- 지도제작에 필요한 정보를 담사를 통해 조사함으로써 지역의 특징을 파악할 수 있다.

활동 과정
1. 그룹 편성
2. 조별 활동이 이루어질 장소의 범위 정하기
3. 각 그룹별로 적은 물건을 정해서 "보물"이라고 적힌 박스에 넣어서 교사에게 제출하고 교사는 이것을 기록한다.
4. 각 그룹은 보물을 정해진 범위내의 장소에 숨기고 교사에게 위치를 알린다. 다른 그룹이 제작한 지도를 가지고 보물을 찾아내는 것이 팀 별 과제이다.
5. 학생들에게 방향, 축척, 랜드 마크, 길의 이름 등을 가지고 지도를 제작하는 방법을 알려준다.
6. 지도 제작
7. 제작한 지도를 그룹별로 교환하고 보물찾기를 시작한다.
8. 찾은 보물을 교사에게 가져온다.
9. 다른 그룹의 지도가 보물을 찾을 때 얼마나 정확했는지 잘못된 표기는 없었던지 그룹별로 평가한다.
APPENDIX C – Questionnaire for Swedish teachers

Questionnaire for teachers
Thank you for being participants of community based outdoor activities. These questions are designed to know how teachers think about the activities. Please complete the following questionnaire and then save the document and return it to Hyesoo Moon (hyemo885@student.liu.se)
If you have any questions about questionnaire and activities, please let me know.

1. How old are the students that you had the activity?

2. What kind of school do student attend?

3. How many students did participate in that activity?

4. You can choose one level from five levels ranging from very low to very high about integration. (V.L. = very low, L. = low, M. = middle, H. = high, and V.H. = very high - You can fill out as “0(zero)” in the blank you want to check out.)

Level of integration

<table>
<thead>
<tr>
<th>Questions</th>
<th>V.L.</th>
<th>L.</th>
<th>M.</th>
<th>H.</th>
<th>V.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which level of integrating subjects in social studies was achieved by the activity you did?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Which level of integrating subjects in social studies was achieved by whole activities overall?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Read the following statements and principles and then write your opinion that is relevant to the activities.

1. All human activity is ultimately dependent upon the environment, its natural resources and processes. (Scottish Natural Heritage, 1993)
2. Our interactions with our environment and its natural processes are so complex that it is often difficult to predict the consequences of our activities. (Scottish Natural Heritage, 1993)


6. Intergenerational Equity – we should do nothing which puts at risk the natural environment’s ability to meet the needs, both material and non-material, of future generations. (Scottish Natural Heritage, 1993)

7. Societal Equity – one sector of society should not exploit natural resources nor damage the environmental at the expense of another. (Scottish Natural Heritage, 1993)

8. Inter-Species Equity – we should respect other life forms: rarely, if ever, are we justified in driving them to extinction for our own purposes. (Scottish Natural Heritage, 1993)

9. If people are to play their full part in achieving a sustainable future, they need to know how their actions at home and at work affect the environment. (Prescott, Deputy Prime Minister, 1999)

10. Education for sustainability starts from the aim of people altering their behaviour to achieve sustainable living, i.e. living in a way that does not deplete non-renewable resources which will be needed by future generations. It acknowledges that people are problem and the solution to most environmental problems and recognizes that economic, political, social and cultural behaviour have a big part to play in sustainable living. (Royal Society for the Protection of Birds, 1999)\(^\text{15}\)

\(^\text{15}\) Nicol, 2001, pp.181-183
6. Which activity did you choose and why did you choose this activity among 17 activities that I provided?

7. Read following sentence and then write the parts of the activities that connecting to each sentence. If there is no part which fulfills the sentence, leave blank space.

- Students have opportunities to have direct face to face encounters with person, place or thing.

- Students express their experience through various forms.

- Students try to develop their experience through ideas and theories expressed in abstract languages or mathematics.

- Students try to participate in the local problems they found through the activities.

8. What do you think about advantages/disadvantages of community based outdoor activities?

9. What were difficulties or obstacles to execute this kind of activities?

Thank you for the answers and help!!
If you want to result of this survey please let me know, I will send it to you.
지역사회기반 야외 현장 학습에 관한 설문조사를 참여해주셔서 감사합니다. 다음의 질문들은 이러한 현장 학습에 대한 한국 교사들의 의견을 묻기 위해 제작되었습니다. 질문지에 답변을 적으신 후 파일을 저장해서 다음의 메일주소로 보내주시면 감사하겠습니다. (hyemo885@student.liu.se)
만약 다음의 활동이나 질문에 대한 의문이 있는 경우 주저하지 마시고 저에게 알려주시기 바랍니다.

1. 현장 학습을 진행한 학생들의 나이 혹은 학년을 적어주십시오.

2. 현장 학습을 진행한 학생들은 어떤 학교에 다니고 있습니까?

3. 몇 명의 학생들이 야외 학습에 참여하였습니까?

4. 수행했던 현장학습을 통해 사회 교과 과목들 간의 통합을 어느 정도 달성 했는가를 묻는 질문입니다. 매우 낮음에서 매우 높음의 5가지 단계 중에서 한 단계를 선택해 주십시오.

*(V.L. = 매우 낮음, L. = 낮음, M. = 중간, H. = 높음, and V.H. = 매우 높음 - 숫자 “0”을 선택한 단계에 해당하는 칸에 입력해 주시면 됩니다.)*

<table>
<thead>
<tr>
<th>질문</th>
<th>V.L.</th>
<th>L.</th>
<th>M.</th>
<th>H.</th>
<th>V.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>수행했던 활동은 사회교과 과목들의 통합이 어느 정도 이루어졌다고 생각하십니까?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>제시했던 모든 활동을 통해 사회 교과 과목들의 통합이 어느 정도 이루어졌다고 생각하십니까?</td>
<td></td>
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</tbody>
</table>

5. 다음은 지속가능한 발전에 대한 원칙과 진술들입니다. 수행했던 활동과 연계하여 당신의 의견을 적어주시기 바랍니다.

1. 모든 인간의 활동은 궁극적으로 환경과 자연자원 그리고 그 과정에 의존하고 있다.
   *(Scottish Natural Heritage, 1993)*

2. 환경 그리고 자연적 과정과 인간의 상호 작용의 영향력을 예측하기 어렵다. *(Scottish Natural Heritage, 1993)*


### 6. 세대간의 평등성: 우리는 미래세대의 물질적 그리고 정신적인 요구에 대한 자연 환경적 역량에 어떠한 위험요소도 투입해서는 안된다. (Scottish Natural Heritage, 1993)

### 7. 사회적 평등성: 사회의 한 부분(계층)은 다른 사회 부분(계층)의 자연자원을 착취하거나 혹은 환경에 해를 입혀서는 안된다. (Scottish Natural Heritage, 1993)

### 8. 종간 평등성: 우리는 다른 형태의 생명을 존중해야 한다. 인간의 이익을 위한 행동이 다른 종의 멸종의 원인이 된다면 그 행동은 어떠한 경우에도 정당화될 수 없다. (Scottish Natural Heritage, 1993)

### 9. 만약 사람들이 지속 가능한 미래를 위한 역할을 충분히 수행하려면, 그들은 그들의 집에서 혹은 직장에서 하는 행동이 환경에 미치는 영향에 대해서 모두 고려해야 할 필요가 있다. (Prescott, Deputy Prime Minister, 1999)

### 10. 지속 가능한 발전을 위한 교육은 그들의 삶의 방식을 지속 가능한 형태로 바꾸는데서 시작된다. 이러한 경제는 인간이 환경문제를 일으키는 문제이자 또한 그것을 해결하는 주체라는 사실을 알려주며, 경제적, 정책적, 사회적 혹은 문화적 행동이 지속 가능한 삶에 큰 역할을 수행한다는 것을 인식하게 한다. (Royal Society for the Protection of Birds, 1999)  

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**6. 17가지의 활동 중에서 당신이 선택한 활동은 무엇이며 왜 그 활동을 선택했습니까?**

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**7. 수행했던 활동 중에서 다음의 문장과 연계된 세부 활동이나 과정이 있었다면 제시한 문장을 다음에 기술하시오. 만약 연계된 과정이 없다면 빈칸으로 남기면 됩니다.**

학생들은 사람이나 장소 그리고 다양한 사물과 직접 대면할 기회를 갖는다.

학생들은 다양한 형태로 활동 중에 경험했던 사실을 표현한다.

학생들은 그들의 경험을 추상적 언어나 수로 표현된 개념이나 이론과 연계하여 발전시키려고 노력한다.
학생들은 그들의 활동을 통해 알게 된 지역의 문제를 해결하기 위해 직접 참여 하려고 노력한다.

8. 지역사회기반 야외 현장 학습을 수행함으로써 얻는 장점과 단점은 무엇이라고 생각하십니까?

9. 이러한 활동을 일반 수업시간에 활용할 수 없는 이유는 무엇입니까?

질문에 응해 주셔서 감사합니다. 이 설문지의 결과를 알고 싶으시면 저에게 이 메일을 통해 알려주시기 바랍니다. 조사 결과를 보내드리겠습니다.
APPENDIX E – Pictures of observation