Meeting over Cultural Boundaries: Networked Learning for Sustainable Development

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ABSTRACT

The purpose of our research is to analyze and describe the ways in which the students experienced their learning process in the field of sustainable development in the Young Masters Program, using a phenomenographic approach to the research. We are focusing in particular on the ways in which the meeting between the course materials, the intercultural discussions and the students' own life-experiences constitute a context for learning, with emphasis on the diversity that is supported by the course. Data are collected from the students' assignments and follow-up discussions where they reflect on the assignments in the course's online meeting place. A learning perspective on the communication is in focus.

Keywords

INTRODUCTION

Despite recognition of the critical role that education for sustainable development (ESD) must play in achieving sustainable development, the full potential of ESD has not been realized after the UN conference in Rio 1992. The Chapter 36 of Agenda 21 called for all countries to develop and implement an Education for Sustainable Development Strategy. Only a handful of nations have drafted strategic frameworks for advancing this process at national level. The UN Decade in Education for Sustainable Development should promote the development and implementation of national strategies. Without engaging our societies, the progress to sustainable development will be halting. Sustainable Development is about a common responsibility and solidarity between generations, between women and men, and between ethnic groups and countries.

Within this decade the UNESCO notes the importance of transdisciplinarity in projects as an effort in creating a culture of peace. The citizenship formation of the youth - how they will act, which lifestyles they will adopt - will be influenced by the way they learn to think about sustainability. Pathways towards sustainability education could be promoted by the recently recognized relationship between sustainability and transdisciplinary education, research and thinking. Learning about sustainability should ultimately include discussions of alternative worldviews, ethics, and the role of humans within ecosystem (Moore, 2005).

THE YMP COURSE

Youth as stakeholders outside the university challenge the academic world and offer a unique opportunity for dialogue on the role of higher institutions in an overall societal transition towards sustainable development (Nordén, 2005a). Since 1999, the International Institute for Industrial Environmental Economics (IIIEE) at Lund University has been working with the education of young students between 14 and 18 years old in what is called the Young Masters Program (YMP) which has so far reached out to some 4000 students in 105 countries, free of charge. The course is supervised by the IIIEE, but for optimal support of the upper secondary school students during the YMP course, it is preferable to have a team of teachers of different subjects at each school who work across the disciplines as mentors to facilitate each study group (called delegation).

The YMP is an interactive, problem-oriented online learning course divided into two parts. Part 1 compromises eight weeks of studies about sustainability. The students learn about biodiversity, gaining an understanding of the complexity of ecosystems and their natural balance, and also about threats to the environment. They begin looking at their world from the perspective of sustainable development. By learning about Agenda 21, they join international efforts in planning improvements, building a better future, and being able to take a stand on sustainability issues. Part 2 focuses on sustainable solutions and deals with preventative environmental strategies over ten weeks. Here participants find out how various actors in society are linked together, taking

into consideration the role of consumers, design for environment and product development, construction, and the total life cycle of a product in order to address sustainable development. They learn to go to the source, instead of focusing end-of-pipe solutions. An optional Part 3 can be added where participants develop a project to apply the concepts they have been learning about to real situations in their local surroundings. Finally, the students, who have only communicated with each other over Internet during Parts 1 and 2, can meet and discuss their projects and experiences in person, at the face-to-face Global Environmental Youth Convention (GEYC) which is arranged every second year. The first Convention, GEYC 2000, took place in Lund, Sweden, and the two following conventions were in Turin, Italy, and Alexandria, Egypt. GEYC 2006 will take place in Dubai, U.A.E. during the autumn. The main theme for this convention of the GEYC in Dubai is "Peace and Sustainable Development". These global meetings seem to particularly catalyze the teenagers' commitment for – and their learning process in – a more sustainable direction (Nordén, 2005b).

THE PURPOSE

The purpose of our research is to analyze and describe the ways in which these students have experienced their learning process in the field of sustainable development in the YMP, using a phenomenographic approach to the research (Marton, 1981; Marton and Booth, 1997). We are focusing in particular on the ways in which the meeting between the course materials, the intercultural discussions and the students' own life-experiences constitute a context for learning, with emphasis on the diversity that is supported by the course.

The teenagers work in interactions across the globe to learn about sustainable development through exploring a learning environment with new ICT-mediated ways of communication including global interaction with ideas and descriptions, and a transdisciplinary approach focusing on social, economic and ecological dimensions of the students' daily lives. Young people from different countries and cultures are working with a common content in the extended classroom. These global meetings are also cultural meetings and they take place in the global room, the extended classroom. The issue is global as well as local. The students hover between two extremes.

THEORETICAL BACKGROUND

According to the result of our research on the YMP online (Hansson and Nordén, 2005), it manages to fulfill two of the proposed objectives of the ESD, which are (1) to provide space and opportunity for refining and promoting the vision of, and transition to sustainable development – through all forms of learning and public awareness, and (2) facilitate networking, exchange and interaction among stakeholders in ESD (UNESCO, 2005).

One strategy recognized to implement the vision of an initiative as far-reaching and broad as the ESD is the use of information and communication technologies (ICTs). ICTs are "the lifeblood" as means of the basis of the "knowledge economy" in ways that fewer natural resources are used than earlier for information transfer and use in purpose to generate wealth.

When accessed interactively over the web, the meaning of sustainability within the YMP via online (distance) learning becomes more useable and learner-friendly. The ICTs offer new modes and new spaces of learning. Options of individual pace, assignments, feedback and interaction are offered in varying ways. The ESD can be widespread. Where learners have access to ICTs a global dialogue can be provided. For example isolated youth – not only of island communities, but worldwide – are linking via ICTs, "sharing experiences and concerns, building consensus and mutual support" (UNESCO, 2005).

In the foreword of the project report *All Different, All Unique – Young people* and *UNESCO Universal Declaration on Cultural Diversity*, Mr Koïchiro Matsuura, Director-General of the United Nations Educational, Scientific and Cultural Organization, express the following:

"The cultural diversity around us today is the outcome of thousands of years of human interaction with nature and among people with different customs, beliefs and ways of life …………………………All cultures are creative and dynamic, but they are also unique, fragile and irreplaceable. A culture neglected for a single generation can be lost forever. It is therefore crucial to create a safe environment in which all cultures can develop freely…………………………Through international and intercultural friendship, young people should benefit from cultural diversity, through their actions today, help to preserve it for generations to come. Thus, while youth are the key to the future, it is essential that they shape the present too." (UNESCO, 2004, p.4)

It could be considered that conditions for renewed dialogue among civilization and cultures are created at the time as the globalisation process, which is facilitated by the fast development of new ICTs, represents a challenge for the cultural diversity. The key to sustainable human development is the preservation and promotion of cultural diversity, which the market forces alone can not guarantee (UNESCO, 2004).

"As a source of exchange and innovation, cultural diversity is as necessary for humankind as biodiversity is for nature." (UNESCO, 2004, p. 6)

In the YMP its value in linking distant partners internationally for information sharing, awareness raising and knowledge formation activities is shown (Hansson and Nordén, 2005).

Our starting point is that through the distance course a global network is developed within which the students work across national and cultural boundaries, boundaries that have to be met and crossed across cultural differences. Different conceptions and different meanings of what are apparently similar concepts have to become the object of reflection, and this gives rise to knowledge formation (Pierce, 1934; Bateson, 1972; Hansson, 2000). The different meetings encouraged the young people to reflect more on attitudes, to realize how their own actions and the actions of other people affect the environment (Hansson, 2004).

First, the students are young people meeting one another as young people do, living in a single world of youth and the problems with environmental and social challenges; second they are meeting in the course, around the common issues of the environment as it is problematised in the course; and thirdly they are meeting as representatives of different cultures with different assumptions and values (Hansson and Nordén, 2005).

RESEARCH DESIGN
The aim of the analysis was to find qualitative differences in the experiences of learning. A learning perspective on the communication and interaction is in focus (Booth and Hultén, 2003). The data are collected from the students' assignments and follow-up discussions where they reflect on the assignments in the course's online meeting place. The part chosen for this research is the first module from Part I of the YMP 2005 online ahead of the GEYC 2006. This module is named "Hanna and Sustainability". In the assignment the students reflect over their daily life situations and the environmental and social consequences. This is the students' first assignment. Twelve study groups i.e. delegations form a team hosted in a virtual Course Room. These groups represent different countries and often even different continents. The students' assignments and follow-up discussions were analysed.

RESULT
The assignments and the follow-up discussions are about "a typical day in your life" and the students discuss how it could be possible to reform in a more sustainable direction. The learning context is characterized by cultural meetings in different ways or global meetings. The learning process takes place in the extended room. The daily life issues could be common issues. But the meetings exchanging experiences on the global level are more seldom seen. The awareness about other countries and the world is growing during the forum discussions.

Cultural meetings – resources
The students are meeting as representatives of different cultures with different assumptions and values. Through contribution in the assignments and the discussion comparison learning deepens on a cultural level. Meeting other cultures contributes to awareness about sustainability.

Alternative ways
The students reflect over how to handle with alternative ways for using resources. What kind of resource is much depending of the culture where the students live. For cooking, the only way – for some students – is to use wood and charcoal. Through comments from other students other aspects contribute to the concept of heating and warming. It could also be about how to go to school and food respectively. They reflect on finding different ways to reach solutions, but they are not always sure what would be the best. In this case within the framework of alternative ways, the cultural diversity was prominent.

Saving

The students often mentioned the importance of saving or even not use. Many of them find that the waste of resources is really large. They have light on in the classroom as well as at home. They leave the computer on. The heating and the air condition are commented. The waste of water is very common. New books, old books and recycling paper could illustrate other issues the students comment in the assignments and follow-up discussions.

The young people recognize similar situations in diverse cultures, especially when it comes to consumption and use of cosmetics, deodorants and "too much plastics" as examples of modern items. The influence of the cultural diversity is quite obvious when the students write about nature protection. Protect nature is to save.

Cultural meetings – environmental problems

The students are meeting as representatives of different cultures with different assumptions and values. Their contribution could be about air pollution, water pollution, and toxic compounds. The issues are connected to where the students live. These issues are local and connected to cultural diversity. The students focused on environmental and ecological problems.

Global meetings – environmental problems

The students are meeting in the course, around environmental issues such as air pollution, ozone layer, energy, and toxic compounds. The issues are not so often recognized as common and global, when the students discuss. The focus among the students´ sustainability discussions is on environmental and ecological problems.

DISCUSSION

It could be noticed by the study of module 1, in the first part of the Young Masters Program that learning occurs in different ways. The assignments published by the students in the groups´ forum discussions in the YMP course online show that different content learning levels and different learning process levels could be observed.

In the assignments of module 1 the high school students describe an ordinary day in their life. They think of what the environmental and social implications of each little step they take during their day and evening are. The teenagers start to reflect and their awareness is raised. Questions are posed – not in general sense – but more specifically and within the group. According to Booth and Hultén (2003) a single statement where variation around critical aspects of the phenomenon could be seen as affording learning at group level, when brought into simultaneous awareness at the group level.

Referring to Booth and Hultén (2003, p.77), who from a phenomenographic perspective found "that there are certain sorts of statements in the context of certain forms of discussion, that offer potential for learning within the group – whether that learning is of an individual who grasps some aspect of the problem and its solution in a new way, or of the group illuminating this process in some new way.

The issue of ´where is the learning?' highlights the community of the group, for it is clearly there that learning can be located in a joint constitution of insights." In our analysis we found that the group discussions are not dramatically dynamic in the start of part 1, but the groups´ forum discussions indicate that the delegations are testing the YMP online learning management system, that is LUVIT as a platform for ESD, and may be capable to create their own potential for learning. They show that they want to know more and to deepen their knowledge through learning dialogues.

Reflective contributions with problematising demand from the students in the group discussion to cease taking something for granted. A detail in the assignment could be isolated and some aspect from a more general field is focused. For example the problems of local air pollution caused by transport vehicles, especially those used by the high school students and their parents in the afternoons and evenings, is turned around to suggesting a focal point for the students to find out what the best arguments for convincing people in their surrounding about the advantages of using alternatives as bikes i.e. change behaviour. The qualities of knowing ´where one is´ is thereby highlighted, and can be of guidance for how to move towards the destination, sustainable development.

When asked, what are the problems you may face while discussing the use of bicycles instead of cars for short distances, as in this case, the forum discussion contribution could even be recognized as a "learning contribution" in the meaning of appearing as the culmination of some threads of arguments. Such contributions

have a characteristic element of critic of one´s own thinking or someone else´s, and it is followed by a search for a better way of analysing and expressing a situation associated with the task (Booth and Hultén, 2003).

The impact of sustainable development is ultimately experienced by the youngsters at most keenly at local level, where livelihoods and resources are enhanced or depleted. The problems and the solutions, and also the causes and the effects are woven into and through each level (UNESCO, 2005).

In thousands of local situations and in a multitude of learning situations the ESD through the YMP online is integrated and implemented. By participating in the learning activities and the forum discussions of the YMP online the teenagers from schools of different kinds, in different geographical and socio-cultural contexts, discover what the key local issues of sustainability are. This happens through the interaction with the teenagers worldwide, where a number of scenarios showing how they live and think in their "ordinary lives". Education for sustainable development must be rooted in the local and start from the grassroots realities, and provide a global context in which to set these phenomena. Ways to integrate local knowledge and culture, and the importance of defining what high-quality ESD would look like, are needed (UNESCO, 2005).

"However, what happens at local level affects and is affected by what happens at global level – broader tensions of globalisation, visible and articulated at worldwide level, find echoes in the problems people face and the solutions they can envisage". (UNESCO, 2005, p. 33)

The significance of the project is twofold. On the one hand, a better understanding of how learning processes can be designed and successfully implemented as outreach from the university can be derived from the example of the YMP. On the other hand, the significance of the YMP outreach activity to the students as individuals and as networked members of both the local and the global society can be of future importance to a sustainable global development.

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