

## Policy and practice in formal education - the quest for ESDA

Per Sund, Uppsala University and Mälardalen University, Sweden

### Introduction

Are there different kinds of education for sustainable development, in other words, is it possible to speak about ESDs? ESD is generally considered to be culturally sensitive but it can also be something different on separate levels within the same society. Policy levels generally aim to change the whole society and create an education system which mainly focuses on the development of good citizens. The role of education is rather instrumental. ESD is more than a tool for conveying well integrated subject matter to citizens with which they will affect the work of society to possibly reach a kind of sustainability.

Integrated subject content is not enough though to make this societal change possible. The educational context can also be seen as an indispensable part of the content. Different explicit and implicit messages are communicated to students during the teaching through teachers' speech and other actions. The context in which subject content is taught is here called the socialization content (Englund, 1990; Östman, 1995). In addition to enhancing knowledge about content issues beyond the view of subject content this paper also attempts to visualise the implications of teachers' actions on students' meaning making. One consequence of teachers' actions is a general value-laden educational content that students learn (Sund & Wickman, b submitted); a content that has both structural and methodological implications for teachers, teacher education and curriculum writers.

International discussions relating to the implementation of ESD often call for further content studies (UNESCO, 2007). Doyle (1992) understands the dichotomy between subject content and the conduct of teaching as created. Schnack (2000) emphasizes that the actual creation of teaching is to be regarded as a teaching content: "The central curricular question is no longer simply concerning the *process* of education, but must itself form part of the content". If it is as Schnack (2000) and Doyle (1992) describe, then educational researchers and practitioners need to grasp the content issues in a much more overarching way and study subject content, teaching methods and teachers' purposes simultaneously.

One way of doing this, and at the same time approaching content issues in a new way, is to study teachers' communicated socialization content. In the teaching process this is constituted by different messages *about* the subject content and *about* education. An important point of departure in this research is that the learning of subject content and socialization content occurs simultaneously, and that together they constitute the educational content. This paper is a short summary of Swedish research on socialization content and focuses on the qualitative aspects and provides examples of how this research impacts teachers teaching. It begins with a discussion as to why separating ESD from an education for sustainable development approach, ESDA that is applicable at the local school level is regarded as fruitful.

An analytical tool developed during earlier research (Sund, 2008a) that facilitates the discernment of important qualitative differences in Swedish upper secondary teachers' socialization content by working within three selective traditions of environmental education (Öhman, 2004) is also outlined. The analytical tool can also be transformed to a reflection tool for teachers and teacher teams to develop their actual teaching towards a more "ESD-like" teaching and learning. In short, the pluralistic tradition found in Sweden can be regarded as a good foundation for the development of a more individually democratic ESD (Lundegård, 2007; Öhman, 2008a) which can be called ESDA (Sund, 2009).

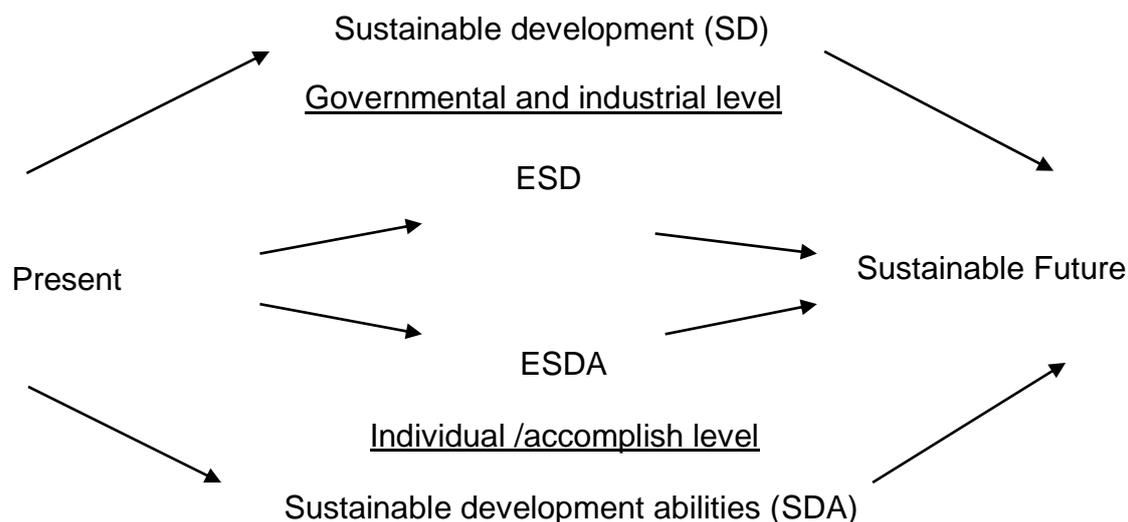
## **Purpose**

The aim of this paper is to contribute to an improved knowledge about socialization content - an indispensable part of education for sustainable development content. The intention is not to dictate which content teachers or teacher educators should include in ESD, but rather to make researchers, teachers, teacher educators and curriculum writers more aware of the existence of the different qualitative aspects of the socialization content in which often integrated subject matter is taught. This overarching way of approaching content issues can be one way of understanding a more changed education which can be called ESDA. Furthermore, it can be regarded as a less normative approach towards teaching and learning than often occurs in normative teaching tradition and in policy-level discussions.

## **Different ESD on different organizational levels**

In societal debates about ESD, a small but nevertheless important additional A can be added to the acronym ESD to form ESDA. This is a way of separating a local teaching approach, referred to as an Education for Sustainable Development Approach (ESDA), from the ESD concept used in policy level discussions about education in general (Sund, 2007b, 2008b). Indeed, many researchers have already suggested that ESD could be regarded as education taught with a new approach (Breiting, 2000; Hart, 2000; Jensen & Schnack, 1997; Scott & Gough, 2003). Since this can lead to confusion, teachers need to differentiate whether the term ESD is being used to describe ESDA in terms of school-based classroom activities, or whether it is referring to a policy-level ESD that includes issues such as every citizen benefiting from sustainable education (see Figure 1, below) (Sund, 2007b).

The research presented here focuses on the essential qualitative educational aspects of the ESDA teaching/learning approach described above. The results illustrate that Swedish upper secondary teachers are already practically involved in developing a changed EE in order to understand what ESD/ESDA means for them. In its focus on the qualitative aspects of teacher teaching, this research discusses how these local attempts can help teachers and teacher educators to improve their understanding as to how an ESDA can be both developed and implemented.



*Figure 1.* By way of explanation, Figure 1 indicates one way of understanding the relationships between the different terms commonly used in discussions relating to sustainable development (SD) learning as a whole. In this framework ESD can be regarded as a policy level perspective on education and ESDA as an approach to education at local school level that educates and equips individuals to contribute to the overall SD process. This educational approach on a accomplish level promotes different personal abilities, which can be used in both private and societal work.

### **The quest for ESDA**

Doyle (1992) maintains that “teachers *author* curriculum events to achieve one or more effects on students” (italics in the original text). Teachers can thus be regarded as directing their teaching and inviting students to take part in the specific educational situation created. In this situation teachers communicate, through speech and other actions, a number of explicit and implicit messages that communicate what they regard as important or how the content might relate to the world at large. These messages also help students to apprehend a context in which the subject content can be understood. Through the subject and socialization content students can subsequently develop *meaning* (Östman, 1995). But there’s a bit more to it than this. The learning of scientific meaning is also accompanied by additional extras, such as the teacher’s view of nature. These different *companion meanings* (Roberts, 1998) can be seen as offering students opportunities to develop meaning (Englund, 1990). In this sense, different companion meanings constitute different socialization content, i.e. different educational content.

In previous educational research, socialization content has traditionally been understood as being deliberately fostering in order to, for example, maintain specific societal norms (Östman, 1995). Like Östman (1995), these studies do not regard the socialization content as necessarily fostering in that they do not make any distinction between parts of socialization content that could be considered as fostering and those that are not.

In addition, there are no distinctions as to whether teachers' socialization content is communicated consciously (intended) or unconsciously (unintended). An important point of departure for this research is that the learning of subject content and socialization content occurs simultaneously, and that together they constitute the educational content. Although the subject matter included in different environmental educators' teaching is often relatively similar in character (Sund & Wickman, 2008), important differences in their teaching can often be identified by examining the socialization content.

Roberts and Östman (1998) have pointed out that content other than subject content is communicated in teaching:

Science textbooks, teachers, and classrooms teach a lot more than scientific meaning of concepts, principles, laws and theories. Most of the extras are taught implicitly, often by what is *not* stated. Students are taught about power and authority, for example. They are taught what knowledge, and what kind of knowledge is worth knowing and whether they can master it. They are taught how to regard themselves in relation to both natural and technologically devised objects and events, and with what demeanour to regard those very objects and events. All of these extras we call "companion meanings". (p. ix, emphasis as the original)

The extras that Roberts and Östman (1998) illuminate here are generally concerned with companion meanings *about the subject*. This research also takes into account that the dichotomy between *what* and *how* can be regarded as created (Doyle, 1992) and seeks to show that socialization content is communicated *through* different *actions*.

### ***Three selective traditions in environmental education***

Research into the history of school subjects has indicated the presence of different traditions of how content and methods are selected. These traditions can therefore be termed selective traditions (Williams, 1973). Since the 1960s, three selective traditions, with reference to their roots in educational philosophy and how environmental and developmental problems are perceived by teachers have evolved in Swedish environmental education: fact-based EE, normative EE and pluralistic EE (Öhman, 2004).

The *fact-based tradition* was formed during the development of EE in the 1960s. Environmental issues are here mainly regarded as ecological issues that can be solved by learning more about the natural sciences. There is an assumption that if teachers teach scientific knowledge to everyone in school then environmental problems caused by human activities will disappear more or less automatically. From an environmental ethical viewpoint, this tradition is situated within modern anthropocentrism – which considers the natural world as something separate from man. From an educational philosophy point of view this tradition is closest to essentialism, where teaching is focused on the subject knowledge needed to solve current problems. The pedagogic task is thus to teach students scientific facts and concepts that will enable them to make the right decisions and behave in the correct way. In this tradition student participation occurs through the teacher taking account of his or her previous experience of students' attitudes and making use of them when planning lessons (Sandell, Öhman, & Östman, 2005).

The *normative tradition* emerged during the 1980s in connection with changes in educational steering documents and societal debates about e.g. nuclear power. Environmental issues are primarily a question of values, where people's lifestyles and the consequences of this are seen as the main threats to the natural world. Scientific knowledge is regarded as normative and something that can guide people towards environmentally-friendly and ethically-correct actions and improved values. From an ethical point of view, humans are seen as an inseparable part of nature and should therefore adapt to its conditions. In this tradition the teaching content is often organised in a thematic way, and includes content from disciplines other than science. In order to ensure that the lessons achieve their intended objectives extra attention is given to the use of students' experiences and attitudes in forming teaching examples and tasks (Sandell et al., 2005). Solving problem in groups in combination with scientific factual information makes this tradition appear as a combination of essentialism and progressivism, which can be called progressessentialism (Östman, 1995).

The *pluralistic tradition* developed during discussions in the 1990s in connection with the 1992 Earth Summit in Rio de Janeiro. Increasing uncertainty about environmental issues and the growing number of different opinions in environmental debates are important points of departure for this tradition. Environmental issues are viewed as both moral and political problems, and environmental problems are regarded as conflicts between human interests. Science does not provide guidance as to any privileged or preferable way to act when it comes to environmental issues. In this tradition, environmental education includes the whole spectrum of social and economic development, which Öhman (2004) refers to as the concept of education for sustainable development. The conflict-based perspective of ESD highlights the democratic processes of classroom activities, such as everyone's opinion being regarded as equally relevant when deciding on a course of action relating to environmental and developmental issues. Pluralism is also an important starting point for the teaching of education for sustainable development. From an environmentally ethical point of view, humans are in focus in that ESD is anthropocentric. As students develop their abilities to engage in democratic discussions about the development of a sustainable society or a more sustainable world, it suggests that the lessons are reconstructivist in character. The varied problems encountered during the lessons indicate that the teaching methods and approaches also vary from individual searching for more scientific facts to writing articles or developing arguments that can be used in debates or published in newspapers.

It is important to point out that the original descriptions of these traditions (above) are in summary form and have been edited in order to make them more succinct. They have also been verified in a large empirical study of teachers (N=568) in the Swedish school system (Swedish National School Agency, 2002).

### **Research results relating to socialization content**

The three selective environmental education traditions outlined above have also been verified by studies of socialization content (Sund & Wickman, a submitted) using an analytical tool developed for researchers, as presented in Table 1, below (Sund, 2008a). In brief, Table 1

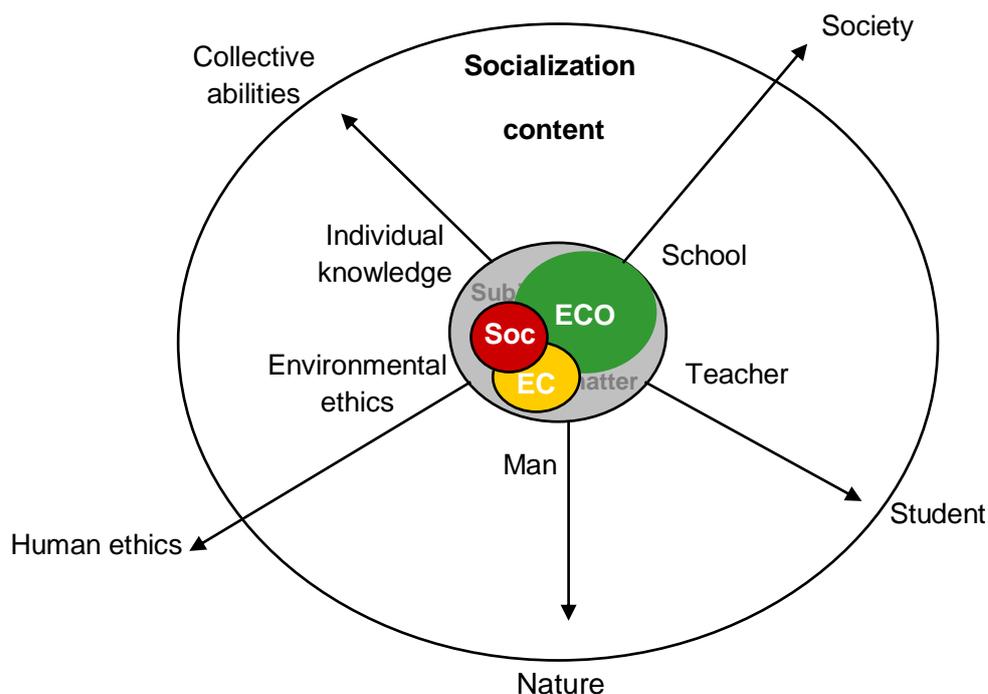
illustrates the five research-based analytical questions relating to essential aspects of environmental education that help to make teachers' socialization content visible. Teachers' ways of answering these questions highlight the companion meanings that teachers communicate to students in their teaching. The companion meanings can in turn point to teachers' approaches to the different value-related aspects of teaching.

*Table 1* illustrates the five analytical questions relating to essential aspects of environmental education that help to make teachers' socialization content visible. Teachers' ways of answering these questions highlight the companion meanings that teachers communicate to students in their teaching. The companion meanings can in turn point to teachers' approach to the different value-related aspects of teaching.

Analytical questions	Companion meanings	Aspects	Examples of answers
1) Why are environmental issues important?	Views of nature as an object or subject	Relation to nature: Man – nature	Resource management – Survival – The intrinsic value of nature
2) What is the teaching aiming to change?	Views of knowledge and the development of students' tools of change	Purpose of the education: Individual – collective	Facts, values – Communicative democratic abilities
3) What different inter-human relations are established?	Views of inter-generational and human solidarity	Ethical historical dimension: Environment, here, now – Humans, there, then	Insignificant – social and cultural orientation in the world
4) How useful is school knowledge in environmental and development issues?	Views of where environmental issues exist in the students' lives	Teaching relation: School – society	Classroom – communicative knowledge with the surrounding world
5) What role do students play in education and environmental work?	Views of students' democratic citizenship	Power relation: Teacher – student	Limited – active co-creators and citizens

Some major features of the results shown in Table 1 can also be presented in more pictorial form, as in Figure 2. One of the main observations is that the further from the centre the higher the degree of integrative and pluralistic socialization content in a teacher's teaching. It is more integrative through its connections and collaborations with the local surroundings and the world at large. This was evident in the interviews conducted with teachers and ran like a thread through each teacher's account of their teaching. Another observation is that the left term in the word-pairs for each educational aspect is in the centre. By moving out from the centre the subject matter and fact-traditions become less dominant, and the teaching becomes much more integrative and pluralistic (Sund & Wickman, a submitted) i.e. more ESDA like (Sund, 2007a, 2007b, 2007c).

### The educational content of ESD in a more overarching way...



*Figure 2.* The further out from the centre the higher degree of integrative socialization content in a teacher's teaching. The left term in the word-pairs for each educational aspect (Table 1) is in the centre. By moving out from the centre the subject matter and fact-traditions becomes less dominant, and the teaching become in overall more integrative.

#### **Socialization content and the selective traditions**

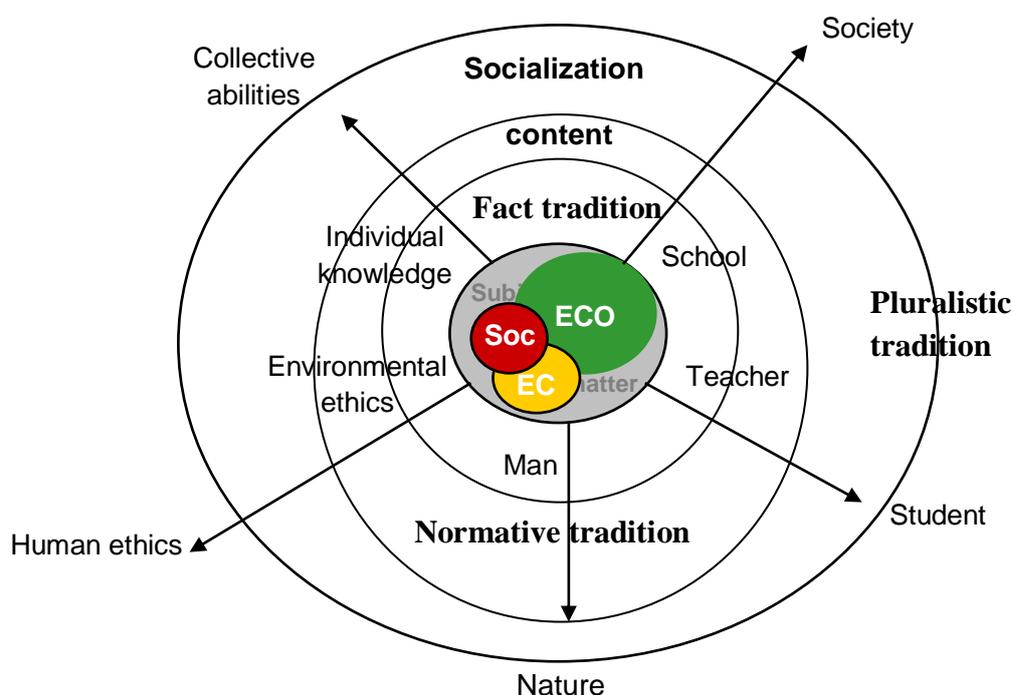
Although the pluralistic tradition puts emphasis on the individual, many of the abilities promoted and developed in this tradition – such as critical thinking, reflection and communication – are designed to be useful in democratic collective situations. In other words, pluralistic teachers try to support their students individually and at the same time enhance and develop their collective abilities so that they become better informed citizens. This type of teaching can be regarded as an educational process that supports the development of an action competence (Jensen & Schnack, 1997).

With regard to the range of school activities on offer, the studies reveal that the fact-based teachers are relatively self-contained in that they conduct most of their teaching in the classroom; a place that seems to meet all their needs. By way of contrast, the normative teachers often express that they take, or intend to take, their students outdoors for lessons; the aim being to develop their feelings of closeness to and connection with nature. To complete the picture, the pluralistic teachers consider school as a vital and relevant part of society and the local community and therefore prefer to interact and communicate with the world at large on a regular basis.

In this context more authentic curriculum material is introduced into school in the form of teaching materials created by different governmental and municipal authorities or NGOs. Different actions outside the school also lead to the introduction of material that has not been specifically developed for teaching situations, which in turn also enhances the development of abilities such as criticism of sources.

In the light of the above it would be fair to say that fact-based teachers are teacher centred and the teachers working in the normative tradition are student centred, although in both traditions the teacher is both the author and the authority in that these teachers plan and organise both lesson content and group work activities. In the pluralistic tradition, however, teachers and students are much more collaborative. For example, pluralistic teachers explicitly say that allowing students to take part in the actions and activities and decide which real life issues are important for them also results in important learning experiences for teachers: “It would be stupid not to let them teach you new things”. In such a tradition students are given the full democratic right to participate both *in* their own education and the development of the common society.

### Discerning Selective Traditions in Teachers' Socialization Content – Implications for ESD (Sund & Wickman, a submitted)



*Figure 3.* Integrated subject content embedded in teachers' socialisation content. This educational context can also be regarded as content in a more extended sense, which is also possible for students to apprehend and learned (Sund & Wickman, b submitted). Some major features of the result of teacher interviews can be presented as a figure. The socialisation content is opened up and made more connective to the surrounding world at large through five important educational aspects.

*Figure 3 continue*

The content connect more as further out from the centre teachers' position their teaching, through different accounts on their teaching. The centre is the starting point, the left term in the word-pairs for each educational aspect (Table 1), where subject matter and fact-traditions are dominant. The normative tradition is still mainly using knowledge as a tool to change students' attitudes. The pluralistic approach which has a reconstructivistic character connects more deeply to the surrounding world and develop sustainable development abilities.

Students learn more content in an educational situation than a well integrated subject content. The results of a student study (Sund & Wickman, b submitted) show that the socialization content also needs to be regarded as a real content. Students apprehend teachers, socialization content and use it actions outside classroom situations. This implies that students have learned parts of the socialization content, i.e. made meaning out of it. All content you can learn at school and use in different situations such as socialization content and subject content can be called educational content.

An integrative socialization content is useful in the sense of not only making a subject content more integrated, but also of better connecting the education to the world at large. In the light of its emphasis on collaboration and integration, the pluralistic tradition could easily be developed into an ESDA that would benefit all school subjects. In other words it could be regarded as a more general approach to teaching and learning within society as a whole (Breiting, 2000). An important consequence of this general approach is that the present gulf between school material and other more specific material, such as that produced by NGOs or specialist organisations, would be bridged. Pluralistic teachers' human ethical starting points and their interest in developing collective abilities all contribute to a deeper human interaction between education and the world at large. The pluralistic teachers taking part in this study already teach a well-integrated environmental education with an ESD-approach. Furthermore, this ESDA is feasible for all subjects and subject areas; something that not only makes it a fruitful way of integrating different school subjects but also supports teachers' team work. Even though teachers still retain a specialist expertise in their own subjects, adopting an ESD-approach means that they can discuss mutual educational interests and purposes and make the teaching situations more meaningful for teachers and students alike. Here, student participation in the pluralistic approach is crucial, and should neither be forgotten nor omitted from the planning process. The democracy aspect is also vital and needs to be an *integral part* of teaching/learning planning situations and practice. This is in contrast to the fact-based and normative traditions, where value-laden decisions are made by teachers or curriculum developers and built into the education *before* actual teaching takes place. Expressed more succinctly, students should be able to experience and develop democratic citizenship during their education, rather than *after* it (Öhman, 2004).

### The educational aspects can be used as a reflection tool

The analytical tool can also be reformulated to a reflection tool for teachers. Teachers might, for example in connection to curriculum changes, need a support to ethically reflect about their starting points in content issues and what different qualitative characteristics in the socialization content that implies. During the development of the analytical tool above, seven questions have crystallised that illuminate essential relations in education in environmental education and education for sustainable development approach. These seven questions are more adapted to an accomplish level in schools than the five questions presented in the analytical tool (Table 1). These questions and teachers different answers are explained in more detail below. Teachers communicate companion meanings in different ways and these can be used to describe how teachers communicate an overall context to students. Integrated subject content in a specific overall context, offer students possibilities to enhance their own meaning making.

### The reflection tool

Teachers are through their different ways of teaching answering seven different content related foundational questions. The answers concerns different relations within the educational content.

Questions about teaching	Described content-relation	The overall context
1) Why are environmental issues important?	Man – nature	<i>The importance of environmental issues</i>
2) What is the teaching aiming to change?	Autonomous individuals – Citizens	<i>Teachers' project of change</i>
3) What role do students play in education and environmental work?	Teacher – student	<i>Students' action space</i>
4) In what way could environmental problems be solved?	Environmental issues – solutions	<i>Students' tools of change</i>
5) What different inter-human relations are established?	We, here and now – mankind, past and future	<i>The social orientation knowledge of the content</i>
6) How useful is school knowledge in environmental and developmental issues?	School – society	<i>The authenticity of the content</i>
7) Where can students encounter environmental work?	Classroom – World	<i>Students' activity space</i>

### Some additional comments on teachers companion meanings

#### 1) Why are environmental issues important?

Teachers' different answers to this question communicate companion meanings which are concerned with relations between man and nature. Teachers' answers are based on their views in environmental ethics. Teachers with an anthropocentric view discuss the necessity of learning more *about* nature in order to take care of and manage it in the best possible way. Nature thus appears as a teaching object that is separate from mankind. This view can be common in the fact-based tradition (Öhman, 2004). Teachers with a more biocentric view of man's relation to nature often teach students *in* nature – outdoors – in an effort to awaken feelings of belonging to or of being at one with nature. In education, teachers can present nature and man as a kind of common, mutual *subject* to be defended; a view that can be common in the normative tradition of environmental education. The *importance of environmental issues* communicates a socialisation content that relates to how nature is described and used in education.

#### 2) What is the teaching aiming to change?

Teachers' ways of teaching and describing knowledge and abilities take their point of departure in the aspect of teaching that deals with the relation between individual or collective solutions as the overarching purpose of education. The teaching can be product-oriented, or more oriented towards the teaching process. Product-orientated teachers often aims at developing individual subject knowledge and personal values, while process-orientation teachers aims to actively develop democratic competencies through group work and various student actions. The *teachers' project of change* is often a combination of changing students' lifestyles and developing their collective democratic abilities for the common work of society.

#### 3) What role do students play in education and environmental work?

Teachers answers to this question shows the companion meanings teachers communicate to students about the importance of their participation in education and for overall societal work with environmental issues, which have a common departure in the power relation between teachers and students. Companion meanings are communicated through the way in which teaching is directed. Teacher, who control education firmly, communicate companion meanings about students not having yet managed to claim full citizenship. Students can be perceived by some teachers as some kind of educational raw material, or as fully-fledged citizens with responsibilities and valuable personal resources. The latter teachers regard democratic aspects like students' participation and influence in the planning as important and communicates to students that they are competent enough to participate in the development of their own education. Teachers' socialisation content, *the extras*, communicates how important students are in education and in society's common work. These companion meanings describe something that could be called *students' action space*.

4) In what way could environmental problems be solved?

Teachers' views on environmental issues communicate messages to students such as which knowledge students should develop to be successful in the common work of solving environmental problems in society. Teachers can choose to give prominence to facts or values questions, or to assert that environmental issues are political issues which need to be solved democratically. These democratic abilities can be developed by working with actual societal problems. The knowledge needed could be referred to messages about the students' *tools of change* in environmental and developmental issues

5) What different inter-human relations are established?

Teachers' expressions regarding inter-human relations can be understood as a possible increased inclusion of human ethics in the environmental education content. Teachers' teaching might quite simply lack messages about human ethics because the content is devoid of inter-human social orientation relations and values. Such education can be understood as being firmly rooted in subject matter perspectives, often mainly in natural science. Teachers who communicate *social orientation knowledge* regularly include inter-generational or other historical perspectives in their teaching. Apart from the global perspective of environmental issues, global perspectives also include inter-human issues such as mutual interdependence, an equitable distribution of global resources and solidarity.

6) How useful is school knowledge in environmental and developmental issues?

This question makes teachers' companion meanings concerning the relation between school and society visible. Teachers can choose to convey pre-selected school content from curriculum or to work with real life issues in contemporary society. Teachers who show confidence in the usefulness of school content or knowledge can offer students a greater participation in and communication with society.

Educational content can be a content that occurs in the actual conduct of teaching in interplay with society, which contributes to making the content *authentic*. Companion meanings communicate messages about where the content is applicable in solving and working with environmental issues in students' everyday lives. Socialisation content communicates to students where environmental issues and the material necessary to work with them are to be found in their everyday lives.

7) Where can students encounter environmental work?

Teachers can choose to locate their teaching in different spaces such as: classroom, school, municipality, country or the world. Teachers communicate companion meanings of where students can meet and work on environmental and developmental issues. *Students activity space* is the space where teachers let students to *live through* and use their acquired knowledge in the teaching process.

## Conclusion

To conclude, qualitative aspects in the socialization content can serve as fruitful starting points in teachers'/teacher groups' discussions about how to change teaching towards more learning, or a change towards an educational approach, here named ESDA.

The educational aspects presented above can be regarded as a sort of pedagogical components which teachers can use to change the socialization content in their education in a more reflected and desired way (Nyberg & Sund, 2007; Sund, 2007a, 2007b, 2007c, 2008a, 2009). These discussions could facilitate the development of a more pluralistic environmental education, which in turn could be further developed into an education for sustainable development (Lundegård, 2007; Öhman, 2008b) taught with an ESDA-approach. In short, in terms of ESD/ESDA, content issues are not only important at the local teaching level, but are also vital in the work of re-orienting teacher education and curriculum writings. It is a choice between common traditional normative teaching approaches often described on policy levels and an approach more focused on the development of informed, independent but democratically skilled students.

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