

Content issues in ESD: Teachers' Content Emphases and the Progress of Content (new name compared to the earlier sent proposal)

Abstract

Debates about the content issue in education for sustainable development, ESD are often supported by ideological arguments (Scott & Gough, 2004). These two empirical studies (both in preparation) are carried out by applying qualitative methods to data collected from ten Swedish upper secondary science teachers by semi structured interviews. The theoretical approach is pragmatist from a teacher perspective.

The teachers answered the questions:
What content do you use in your course?
Why should students learn this content?

Educational content produced by teachers and students as realized through classroom work or other educational activities is called content of the educational process or the progress of content. In ESD when teachers and students are working on a path together in a participatory way content will be produced and content in progress in a mutual teaching process. This type of content can be described as messages communicated to students by the teachers ESD approach to education.

Teachers' purposes are studied in interviews, where the teachers can give their arguments in a life context. Their purposes form different coherent sets of messages and these are called teachers' content emphases. These emphases have often empathic features, which are examined (Sund, 2006 a, in prep.). Examining purposes resembles the description of curriculum emphases what has been made in science education by studying North American curriculum material (Roberts, 1982).

Introduction

There is a great need in environmental education, EE and ESD research to empirically study the content used by teachers in their everyday practice and their purposes using the selected content. "Teaching is a practice. So are management (of all kinds), parenting, construction, retailing, policy making and so on. The existence of a practice further implies the existence of practitioners, who will have a set of beliefs or theories which constitute their own views of their practice" (Scott & Gough, 2003), which can be called "more generally the purposes of education" (ibid). Teachers' thoughts about the purposes needs to be examined further and can be made visible through teacher interviews. Questions are put to the teachers about content issues when teaching a mandatory general science course, which content mainly concerns environmental issues. These kind of content issues have often been neglected. Schulman (1986) "what we miss are questions about the *content* of the lesson taught" (emphasis in original). The content issue will be examined and be described in a new way by analysing explicit and implicit messages communicated by the teachers to the students during the realization of the educational process (Sund, 2006 b, in prep.). Content is never objective or neutral. Facts are always value-laden (Östman, 1995). Important to keep in mind though is that there is always an interest behind a presentation of facts and a purpose of choosing some specific facts. Such interests is communicated through companion meanings (Roberts, 1998) that are expressed deliberately or unintentionally by teachers.

By examining the companion meanings and teachers' explicitly expressed purposes in answers to the why-question (above), teachers' content emphasis can be described (Sund, 2006 a, in preparation).

Background

Roberts (1982) investigated how North American science curriculum material answered the student question: Why should I learn this? He found seven curriculum emphases e.g. correct explanation emphases, structure of science and everyday coping emphases. Based on more recent science texts there were later three more additional curriculum emphases in the area of science and production (Fensham, 1995). These ten answers could be seen as descriptions from a subject perspective, as purposes in a selective tradition (Öhman, 2004). The two qualitative studies presented in this paper address the same questions to teachers and the data is gathered from interviews instead of text materials.

Purposes are given from a teacher's perspective and contain their thoughts about general aims of good education and what content should be used in an educational process. The actual teaching practices communicate messages by companion meanings to the students about their role and importance in their own education and their contribution in work, regarding real common environmental issues.

Teachers are constantly influenced by curriculum material and debates in the society concerning the need of educated citizens (see fig 1). At an individual level the teacher has to interpret the demands from different system levels and make the content suitable for teaching and learning practices. Teacher's own ideas about the purposes of education will be an important part of the messages sent to students in the classroom. Teachers have personalities and they will not just reduce themselves to passive transformers of different system level demands like cogs in a machinery (Hart, 1993). The funnel of content show teachers' exposed position between the expectations of the system levels and different needs and desires discerned by the teacher at the individual level. There is a vast amount of different expectations and the teachers' work is to manage to set up an educational process so that students will get the opportunities to fulfil some or most of them. Teachers have to make decisions about what content to use and what student actions to use and these decisions are influenced by teachers' own ideas of good education. Ideas and values will be visible in the content brought to the classroom and thoughts of alternative views on teaching practices. In teachers' content emphases teachers' own attitudes towards education will become visible. The companion meanings will be communicated to students through content selection and teaching methods. Various teaching activities implemented by the teacher allow students to be more participatory and responsible for their own education. Students are encouraged to be an active part in solving real environmental issues in the society. In general, ESD will be more student inclusive, democratic and purpose driven.

Purpose of the studies

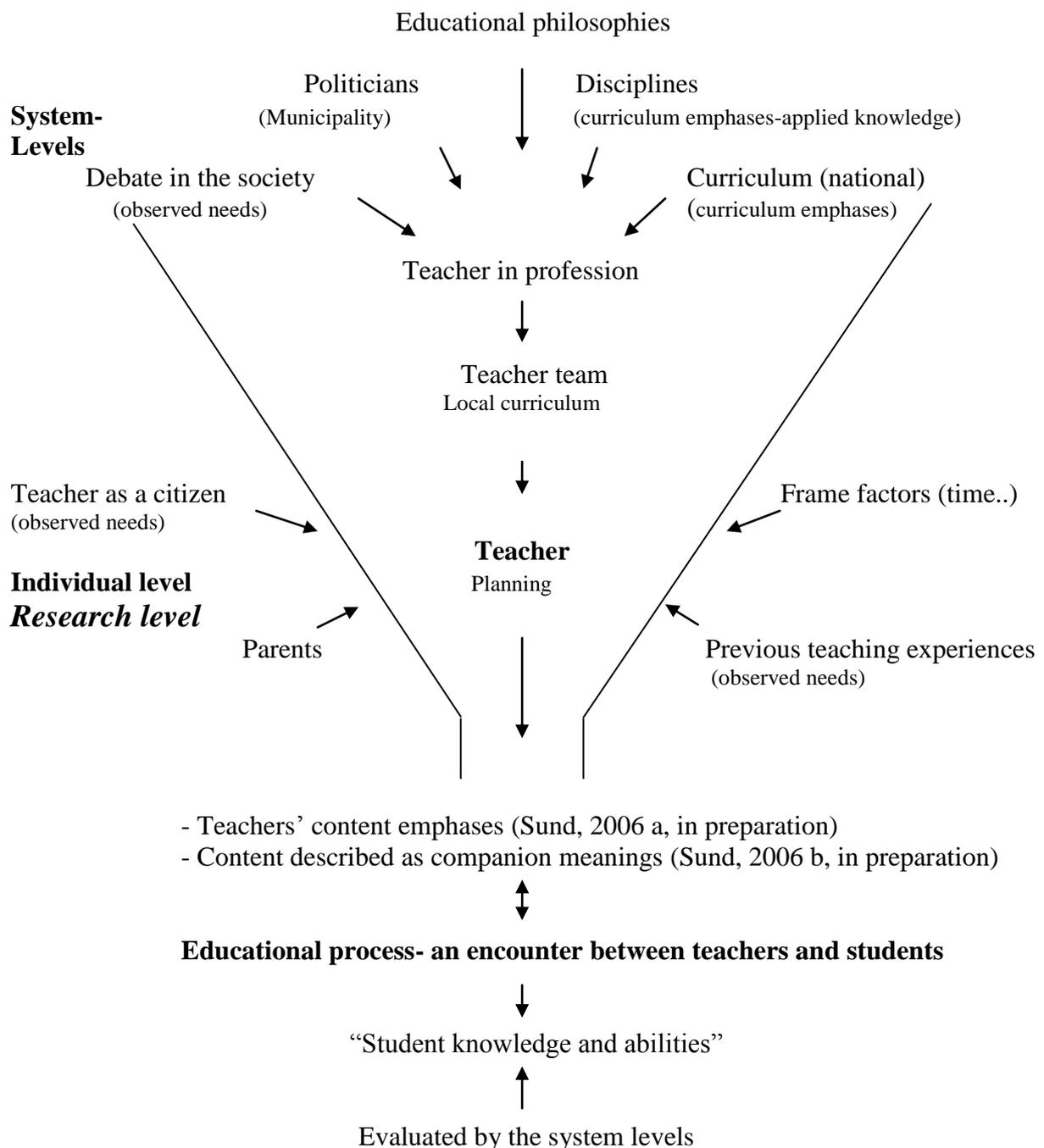
The purpose is to study and show that teachers' content emphases exist and make them visible. This research will neither decide what the right or the best content is, nor produce a list of recommended content, but it sets out to make more educational content visible.

Research questions are: (1) What content do you use in environmental education or ESD? (2) Why this content? The answer to the first question will make the subject content visible and examine the results beyond a subject perspective of different topics. The content study will examine the content generated in the educational process, content in progress.

Teachers may have many different purposes; general purposes as control or amusement can be called activity purposes. These include monitoring activities for grading and making everyone involved or interested. Such purposes are excluded in these studies.

Figure 1.

Framing the research issue: The funnel of content



Method

Ten upper secondary teachers were interviewed for 60-80minutes about their thoughts of teaching a topic of EE or ESD within a mandatory course. The course contains some general science but consists of more than 75% of content related to EE and ESD. To be able to present a wide picture of teacher purposes the selection of teachers were made by choosing teachers from schools in different towns and various educational programs. Data was transcribed and heuristically analysed.

Results

The content was first divided in to the categories of (1) subject content, (2) companion meanings about the subject and (3) companion meanings communicated through teaching activities. Through this division it was possible to discern teachers' companion meanings related to the way they were used to communicate the purpose of the teaching content in a life context. These companion meanings consisted of different messages of demands from the society or private enterprises but also demands from pupils' future coming professions or higher education studies. Teachers' purposes were possible to describe by looking at, the teachers' answers to the question: Why should students learn this content? Answers to the why-question concerning companion meanings were formulated by teachers who have discerned the needs of knowledge and abilities from encounters with students in former teaching practices and as a citizen from a societal perspective (see fig 1).

What are teachers' purposes concerned about? The question showed that teacher purposes could be traced to a context in which it was logically consistent, a coherent set of messages, furthermore that the content emphases could be described as emphases of concern. These emphases are likely to have their origin in values, earlier experience, educational background and different views of pupils' participation in their own education. The emphases mentioned have some empathic characteristics which need to be further examined.

Preliminary results show that there exist main emphases in the content used by teachers. These emphases will be called teacher content emphases in a coming article (Sund, 2006 a, in prep.). Some teacher content emphases are: environmental consciousness, pupil –all human beings, survival of mankind, knowledge and society. Teachers are not just having one and the same emphasis all the time, but depending on the educational context, they are stressing different objects of interest or concern. Depending on topic or type of educational activities different teacher content emphases are likely to dominate.

Teachers, whose teaching methods give students possibilities to participate and to be active and critical in the teaching process, communicate this to students through companion meanings. These messages contain information of the usefulness of, the authenticity of "school knowledge" in the surrounding society and the importance of students' actions to solve real common societal environmental issues. Messages are communicated through this kind of a mutual teaching process: how important environmental problems really are, what they consist of, how to solve them and what has to be changed. These companion meanings, especially important for ESD, need to be studied further (Sund, 2006 b, in prep.).

Educational content actively and mutually produced by teachers and students during the teaching process is called content of the educational process or content in progress. The content of the process is in a constant progress and change, sometimes out of the teachers' control. This type of content can be described by an extension of the concept of companion meanings (Roberts & Östman, 1998).

Discussion

The teacher content emphases containing empathic characteristics clearly show the importance of knowing more about the influence teachers have in their work to convey demands from different agents in society at system level and individual level.

We have struggled with institutional hegemony as much we have with our own ideological biases and predispositions. We have thought about change in many levels but always return to the personal. New curricula placed before these teachers without counting for personal beliefs and values (e.g. sustainable environments) will not affect social learning or change. Unless we add personal beliefs and values into the personal mix of framework dimensions and address change at the personal level, we remain suspended at the analytic/rhetoric rather than at a pedagogical level of understanding. Nothing happens if we do not pay more than lipservice to the genuine dialectic of theory and practice (Hart, 1993).

There is still a great need of studying the implementation difficulties of school curricula. One way of making curriculum implementations more stringent and meaningful for all parts at school is to make teachers a crucial part of it. Teachers need to be educated and made more aware of different content issues so they can participate professionally in developing schools and turning EE into ESD. "Teacher involvement is the key element in the process of environmental education renewal in the field of education"(Ibid).

Future implications and questions for discussion during the presentation

Thus, a practical "tool" for curriculum development in/for environmental education, the heuristic potential of such frameworks often remains tacit as grounding for our understanding of variety in approaches, and in raising consciousness of the implications of our own environmental preferences and educational decisions (Hart, 1993)

An overall thought in this study and the rest of the doctoral thesis (article three and four) is to find out what kind of research is needed to develop a reflection tool for teachers.

Some questions need to be asked to make this research fruitful and useful.

- 1) What knowledge is needed to develop a reflection tool for teachers besides knowledge about teachers' content emphases and the description of content generated in an educational ESD process?
- 2) What other interesting future research implications can be outlined from the funnel of content (fig 1)?
- 3) Can teachers' content emphases show how to promote the transfer and development of environmental education, EE into education for sustainable development, ESD?
- 4) What emphases have the strongest influence in the teaching process, teachers' emphases or curriculum emphases? Are the selective traditions in a subject stronger than the teachers own thoughts of what should be the most suitable content in the actual context or teaching situation?

Teacher content emphases and a “language” or a description of process generated content, could open up a new field of education research. It could also help developing a reflection tool that will assist teachers in their professional development. Content issues are today, and will be even more so, a never ending discussion due to the purpose driven intentions in ESD. The same content can be used for different purposes or a certain purpose can make some specific content legitimate due to the purpose behind the action. Teachers and students purposes creates content in the teaching process (Sandell, Öhman, & Östman, 2005) and the purposes and the progress of content of EE and ESD needs to be further studied.

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