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HIGHER EDUCATION STUDENTS' CHALLENGES IN DESIGNING A COURSE "SUSTAINABLE DEVELOPMENT IN EDUCATION"

Jaana Herranen[1], Sakari Tolppanen[1], Veli-Matti Vesterinen[2] and Maija Aksela[1]
[1]University of Helsinki, Department of Chemistry, Unit of Teacher Education, Helsinki, Finland
[2]University of Turku, Department of Chemistry, Turku, Finland

This study examines the challenges of a student-led course on education for sustainable development. The course was planned and implemented by a multidisciplinary team of master-level students. The data for this qualitative case-study was collected by recording the team of students during the design process, and by interviewing the course designers after the course. The interviews and selected parts of the planning conversations were transcribed and analysed by using inductive and deductive content analysis. The challenges in designing the course were linked to the students` visions and values, their views in pedagogy and to managing the course. For example challenges in students` visions and values included deciding the aim of the course, who the course is for, and what sustainable development is. Identifying those challenges enables the effective development of student-led sustainability education.

Keywords: Society and environment education, higher education, educational reform

STUDENT-CENTRED SUSTAINABILITY EDUCATION

Education for sustainable development (ESD), should highlight the whole community of learners for example by encouraging participatory decision-making involving teachers, students and researchers (Burmeister, Rauch & Eilks, 2012; Rauch, 2004). ESD should also be interdisciplinary and learner-centred (e.g. Burmeister, Rauch & Eilks, 2012).

Learner-centred education can be defined for example as the "ways of thinking and learning that emphasize student responsibility and activity in learning rather than what the teachers are doing" (Cannon & Newble, 2000). Despite the fact that higher education has been dominated by lecture-type instruction (Sander, Stevenson, King & Coates, 2000), students generally prefer the use of student-centred methods (Lea, 2003). Student-centred education could increase the students` "motivation to learn, retention of knowledge, depth of understanding and appreciation of the subject being taught" (Felder & Brent, 1996). There could, however, also be challenges when applying it. Those challenges are for example inadequate resources, inflexible timetables, lack of personal motivation or self-discipline, students feeling left alone or anxious if they do not know what to expect, and the teacher`s personality (Lea, 2003).

In order to develop sustainability education further, even more radical shift is needed than student-centeredness. Students need to get involved with shaping the content and form of their education (Gradin, 2011). This is opposite to the "inside out" approach described by Sander et al. (2000) in which those who are inside, the teachers, think they know what is best to those on the outside, the students. By designing a course of their own, there is potential to empower the course designers and design a course related to the needs of the participating students (e.g. Malmlöv & Moberg, 2008). However, research on the challenges and how to address those challenges of this kind of student-led ESD, is lacking.

The case-study described in here is a part of a design-based research on a student-led course on sustainability education. The course "Sustainable Development in Education" was part of a three year Nordic, collaborative project ActSHEN (Action for Sustainability in Higher Education in the Nordic region) funded by Nordplus. The course was run by three master-level students (course designers) from different faculties. The students were given free hands to design and implement the course. Only the name and the

extent of the course were given. The research question is: What were the challenges students faced, when designing a student-led course on sustainability?

METHOD

This qualitative case-study (Cohen, Manion & Morrison, 2007) is a part of a more extensive design-based research (Edelson, 2002) on developing the course. The data for the case study was collected by recording the conversations of the course designer team during the design process, and by interviewing the course designers after the course. The interviews and selected parts of the conversations were transcribed and analysed by using inductive and deductive content analysis.

Main categories for the analysis were derived from the ActSHEN-project's final framework, student-driven ESD (ActSHEN Project Group, 2016). These categories are (i) vision and values, (ii) pedagogy, and (iii) governance and support. Both the implied and explicitly stated challenges were drawn from the data. The inductive content analysis was done by conducting multiple readings of the data. Coding was negotiated between the researchers to achieve consensus.

RESULTS

The analysis revealed that during the planning process, the students faced several interrelated challenges. Summary of the various types of challenges is presented in Table 1.

Table 1. Challenges when designing a student-led course "Sustainable Development in Education"

Main category	Challenge
Vision & value	What are the aims for the course?
	Who the course is for?
	How to take the national curriculum into consideration?
	What is sustainable development?
	What is expertise on education for sustainable development?
Pedagogy	What is the role of students?
	How to create balance between theory and practice?
	How to support students with different backgrounds?
Governance and support	How to choose course designers?
	How to divide work?
	How to utilize strengths of group members?
	How to increase the impact of the course?

In many cases, the challenges were resolved by working towards a consensus decision. In other cases, the consensus was not reached, but the designers seemed to "agree to disagree" and just continued planning other elements of the course. For example, when the designers found it challenging to decide the aim of the course, they decided to write down their suggestions for goals and continue the discussion on them in the next meeting. Explaining the situation, one of the students said in the second planning meeting:

"Everyone has such different goals, so we had to write them down. We will discuss the goals which we want to include in the course and then see how it builds up, and of course what we have time for, as the course is only worth a certain amount of credits."

In the interviews, students said they would have liked more support for resolving some challenges, such as finding ways to utilize the strengths of the group members. To respond to this need of "team building", the

course designers decided to act as mentors for the team of students running the course during the next academic year.

DISCUSSION AND IMPLICATIONS

There is great potential in student-led ESD to reshape education for example by empowering the students. This research, however, shows that there are also challenges in it. These challenges are not linear and are overlapping in many cases. For example pedagogical choices link to values.

The results of this study show that most of the challenges derive from internal conflicts of the team during the design process. Support would have been needed, but this leads to a question of autonomy. By increasing support, would it decrease the students` autonomy and thus motivation? Also, challenges can be seen fruitful for learning. During planning, the students had to justify their values and ideas of pedagogy. Despite of the challenges, the students found the course a great success and dedicated to support the continuity of the course.

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