

## **KEY FACTORS FOR EDUCATION FOR SUSTAINABLE DEVELOPMENT**

*a case study from a rural secondary school in Norway*

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### **Abstract**

In this paper we report on how a rural secondary school in Norway, supported by The Sustainable backpack (Den naturlige skolesekken, DNS<sup>1</sup>) has implemented Education for Sustainable Development (ESD). The Sustainable backpack was launched in 2008 in response to UNESCO's International Implementation Scheme for the Decade of ESD and the Norwegian Strategy plan for the ESD 2005-2010. The Norwegian strategy is now revised for the period 2012-2015. The aim of the Sustainable backpack is to increase awareness, understanding and competencies in and for sustainable development for teachers and students in primary and secondary education. In this study we explore how a school in Norway has succeeded with ESD and try to identify factors central to implementing and making ESD viable in schools in general. This paper describes and discusses findings from interviews with the teachers, students and the school leader at a secondary rural school in Norway. The preliminary findings suggest that the school in many ways has succeeded with the aims of ESD, in terms of increasing awareness, understanding and competencies in and for sustainable development for teachers and students. The findings also indicate that there are three factors which seem to be crucial for this success. First, is a school-leader with a clear vision and ideas on how to integrate sustainable development in ordinary teaching. Secondly, are competent teachers who support and implement this shared vision into their curriculum and teaching. Finally, a factor which seems to be crucial is that the school's ESD work is strongly rooted in how to make the rural community sustainable for the future (local relevance). This factor illuminates the importance of having a local focus to make topics in ESD relevant and authentic to students.

**Key Words:** Education for Sustainable Development, engagement, understanding, teaching

### **Introduction**

Since the beginning of the Decade on Education for Sustainable Development in 2005 (UNESCO, 2005) increasing scientific knowledge on global warming has demonstrated that the challenges facing environmental protection and sustainable development have become more, not less urgent (IPCC, 2013). The current curriculum for primary and secondary education in Norway contains several competence aims for sustainable development within several subjects (including science and social studies). These competence aims shall ensure that Norwegian students have awareness, understanding and competencies for acting for sustainable development. Additionally, Norway has a Strategy plan for the ESD 2005-2010, revised and expanded for the 2012-2015 (Kunnskapsdepartementet, 2012).

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<sup>1</sup> <http://www.natursekken.no/>

However, reaching this goal for teachers is, in no way easy. Sustainable development is a multidisciplinary topic, e.g. a topic embracing several school subjects, requiring teachers to collaborate either within or between subjects. Many teachers who collaborate in such interdisciplinary education report being overworked and unable to dedicate the time required to meet and collaborate on shared activities (Gayford, 2002; Sjøberg, Jorde, Haldorsen, & Lea, 1995). The result is that teachers teaching multidisciplinary topics tend to maintain the integrity of their subject or neglect subject areas outside of their main expertise (Pharo et al., 2012). The Sustainable backpack supports schools and teachers in overcoming these challenges of teaching sustainable development in numerous ways, such as networking between teachers, schools and Teacher Professional Development (TPD) experts. In addition teachers are given TPD courses as well as economic support to their school projects. Each participating school has the responsibility of creating and implementing ESD in their local practice and creating structures for the project work at the school. In this paper a rural secondary school in Norway is studied to explore in what ways the school has succeeded with ESD and to identify factors that might be central to implementing and making ESD viable in schools. The following research questions are explored: 1) How has the school succeeded with ESD in terms of giving the students awareness, understanding and competencies for acting for sustainable development? and 2) What are the factors that can be identified as central to ESD in this school?

## **Method**

To answer the research questions, qualitative data was collected from interviews with five teachers, eight students (age 15) and the school-leader from a rural secondary school. Additional data include written reports describing the work at the school. The school participated in the sustainable backpack for three years, and was selected for being a school that apparently had succeeded with ESD. The interviews were conducted with three clusters, the teachers together, the school-leader alone and the students in two groups with four students in each. The questions in the interviews was related to how the school worked with sustainable development (SD), teachers and students' experiences and perception of SD, in addition to students understanding of SD. Two researchers (authors) conducted the interviews, and were both present. All interviews were audio-recorded and subsequently transcribed.

## **Results**

The main topic for working with ESD at the school was on ecological, social and economic aspects of food that was locally produced. All three groups, the school leader, the teachers and the students described the work as interesting and meaningful because the topic was highly relevant to their own life. There was coherence between the school leader and the teachers' description and perception of how the ESD was implemented in the school. Both teachers and students reported an increased awareness and understanding of sustainable development. This result was also supported in interviews with the students, where they were asked to choose a food product based on different variables (price, taste, production, transport etc.). In the students' answers it was apparent that they considered ecological, social and economic aspects of how the food product was produced, before making a choice.

## **Discussion and conclusions**

The findings suggest that the school has managed to educate their students to have awareness, understanding and competencies for acting for sustainable development. The focus on sustainable development seems to be well integrated into the teachers practice. From the interviews is it appears clearly that teachers and the school-leader have similar views and

visions about the ESD work at the school. Factors which seem to be crucial for this school's success are a school-leader with a clear vision and ideas on how to integrate sustainable development in ordinary teaching and secondly, competent teachers who support and implement this vision into their curriculum. Further is the school's ESD work strongly rooted in how to make the rural community sustainable for the future and the students are well aware of this focus and all concerned on supporting their community.

The results from this study highlight the importance of ESD being supported by the leadership at the school, and that focusing on local sustainable development can be a key factor for succeeding with ESD over time. In a time where we face many environmental, social and economic challenges is ESD more important than ever. The results are important for the development of the Sustainable backpack and further work with Norway's strategy for ESD, and most importantly; for a sustainable development on Earth.

### **Acknowledgement**

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