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Children's understanding of sustainability in their home and kindergarten

Abstract

This article presents an ongoing study within early childhood education for sustainability at the Department for Early Childhood Education in Stavanger, in collaboration with the School of Early Childhood, Queensland University of Technology, in Brisbane, Australia. The study commenced in 2014, and will compare the responses to interviews of young children (4-5 years) in Brisbane with those of children in Stavanger, in order to find out ways to enhance learning about sustainability topics, to identify which kind of environmental/sustainability activities are memorable for young children, and to obtain mutual inspiration about early childhood education for sustainability from the different countries.

Introduction

Early childhood education for sustainability is a newly emerging research area at the Department of Early Childhood Education, University of Stavanger. Overall, research in this field is limited, both in Scandinavia, and internationally (Davis 2009; Johansson et al. 2009; Ärlemalm-Hagser & Sandberg 2013; Davis & Elliot 2014). The research underpinning this field stems from the definition of sustainable development from the Brundtland Commission (WCED 1987), but has to consider that education for sustainability in early childhood education is provocative and needs its own definition and terms (Davis 2010).

The Norwegian National Framework Plan for the Content and Tasks of Kindergartens (Ministry of Education and Research 2011) underlines the importance of fostering a sense of responsibility for the natural environment and states that an understanding of sustainable development is to be promoted in the kindergarten's everyday life, and that respect for life, charity and solidarity are fundamental, also in a global perspective.

The importance of starting education for sustainable development early in life is becoming more recognized, but the practical experiences and competences within this area are generally limited in the kindergartens. Therefore, it is important to develop and strengthen the kindergarten's learning cultures and practices related to sustainability, and to ensure children's active participation in decision making and action taking in relation to sustainable development.

The study

The initial idea behind this study was to use children's responses and ideas to get an impression about the current learning cultures for sustainability in kindergartens in Norway. Another early idea was to extend the scope of the study by comparing children's perspectives from Norway and Australia. In Australia, the standard of living and the economic status of its population are similar to that of Norway, and so are the challenges for practical implementation of sustainability in the kindergartens. Yet, in Australia, sustainability has had a somewhat stronger focus in the National preschool curriculum (DEEWR 2009) than in Norway (Ministry of Education and Research 2011). It will be interesting to ascertain common ground, and/or possible differences, amongst children's responses concerning their conceptions and thoughts about sustainability. At a later stage, the study may be extended to include other countries.

The overall purpose of the study is to investigate the understandings of 4-5 year old children at home and at kindergarten about topics related to sustainability, both in Brisbane and in Stavanger. Specifically, the study will investigate how children interpret their everyday sustainability activities such as recycling, using water, and being in nature. Additionally, the study will investigate the kinds of sustainability/nature activities and experiences that are impressive/memorable to children. Further, the study seeks to identify children's understandings of a range of sustainability topics and will investigate what children think of adult attitudes/behaviors towards sustainability-related activities and practices.

The study is scoped for 20 audio-recorded interviews of about 20 minutes with children at both localities. The interviews with the children in Brisbane will be undertaken by Dr Julie Davis and Mia Christensen, those in Stavanger by Dr Barbara M. Sageidet.

The questions for the interviews are related to the children's subjective and individual experiences and conceptions; however, some responses are also related to measurable factors, such as whether a child likes to be outside or not, if she/he has remembered to sort/collect garbage or not, whether the child knows what rubbish is or not. Background conversations with staff and the analysis of written documents related to the kindergartens will give information, additional to the conversations with the children. This additional information, such as noting gardens in the kindergartens, the kind of playground and outdoor facilities, any

recycling systems, or composting equipment, will be used in order to correlate the results. Data will be analyzed both qualitatively, using a phenomenological approach (Nolan et al. 2013), and quantitatively, using SPSS (Pallant 2010). The quantitative analysis will have most importance for a later phase of the study. In Stavanger, it is planned to continue collecting interviews over a period of 2-3 years until a total of one hundred interviews have been completed. This will help to map and categorize similarities and differences among the measurable or comparative information gained from the interviews. The results of both qualitative and quantitative analyses will be evaluated with the help of theories and literature on children's participation, values, identity and sustainability.

Preliminary results and conclusion

The study is at an early stage, but has already given initial insights into children's understandings and personal preferences. As expected, children of this age do not distinguish between sustainability-related activities and other kinds of everyday activities. Most of the children already interviewed seem to have a poor understanding of basic terms like "nature" or "rubbish". The children's responses and ideas will be used to find out ways to enhance learning about sustainability, and to develop guidelines for memorable activities related to sustainability. Based on the results, it may be possible to better adapt learning concepts to children's understandings, and to identify possible needs for the professional education of early childhood educators.

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