

## **Rethinking human-nature relationships in educational sciences: Finnish university students' worldviews and perspectives on teaching about the interconnectedness of all life**

This study is part of the research project ALTED (Adult Learning and Transformative Sustainability Education), which explores adult learning and transformative sustainability education. The aim of the project is twofold, to deepen the understanding of adults' learning and agency in the sustainability crises, and through this understanding further develop sustainability education practices. The research seeks to advance knowledge on how transformative sustainability expertise and agency can be supported among students within the educational sciences. This includes degree in early childhood education, class teacher education as well as general and adult education.

The focus of the research is on four key areas in sustainability education: 1. Rethinking human-nature relationships, 2. Living with ecological and climate anxiety, 3. Envisioning sustainable futures, and 4. Gaining transformative agency for change. These areas are central for transformative sustainability education and represent key competence areas identified among sustainability education researchers in course development work at the Faculty of Educational Sciences at University of Helsinki. Each key area will be investigated through four sub-studies: This conference presentation will present the ALTED project and preliminary results from the first sub-study.

### **The sub-study in focus**

The focus of the first sub-study is on the university students' worldviews in respect to their relations to nature, and how they envision possible ways by which education can advance eco-centric worldviews. The research questions are: 1. How do students within educational sciences view their own relations to nature? 2. How do students possibly envision ways by which education can advance eco-centric worldviews and teach about the interconnectedness of all life?

The study draws on previously conducted research on international sustainability policies and Finnish education curricular development regarding aims of worldview transformation and needs to include more interconnected approaches and worldviews in education (Hyytinen et al., 2023; Zilliacus & Wolff, 2021; Lehtonen et al., 2019). Theoretically the study will draw on different human-nature relationships and how they are currently introduced and taught (de Groot and van der Born, 2007; Zilliacus et al., in press).

## Methods and materials

The research material for the sub-study will consist of students' written course assignments during the academic years 2023-2024 and 2024-2025 in an introductory sustainability education course at the Faculty of Educational Sciences at the University of Helsinki. This is an obligatory course taken by all bachelor students starting from spring 2024. The core structure of the course has been developed by a working group of researchers and has then been further developed by me as the responsible teacher. The total number of informants is anticipated to approximately 90 students. The assignments will be analyzed through topological thematic analysis (Hatch, 2002), taking as starting point different metaphors for human-nature relationships (Zilliacus et al., in press). The anticipated results can give new insight into the university students' nature relations and how these reflect in their perspectives and ideas on how worldview change and eco-centric perspectives may be enhanced in education and teaching practice.

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Authors' accepted manuscript available through <https://researchportal.helsinki.fi/fi/publications/climate-change-and-worldview-transformation-in-finnish-education->

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