

Institutionen för didaktik och pedagogisk profession

Epistemic Beliefs and Conceptions of Competence in Education for Sustainable Development

av

Marie Grice

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Abstract

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Education for sustainable development (ESD) raises critical questions regarding what knowledge should be taught and what the learning outcomes should be. The aim of this thesis is to explore epistemological, ethical and critical dimensions of ESD. There are two empirical sites. One is a transdisciplinary educational project with upper-secondary Swedish students (n=208) from 16 different schools, the other involves teachers (n=158) at a large Swedish upper-secondary school implementing ESD.

The research design is emergent, combining empirical and theoretical studies. A questionnaire instrument to explore students' epistemic beliefs (personal theories of knowledge and knowing) was constructed. Exploratory factor analysis identified five dimensions: transdisciplinary, certain, quick, collaborative, and simple knowledge. These showed predictive power in a multiple regression analysis. Another instrument was constructed to examine teachers' ESD competences. Four dimensions were identified.

Wicked sustainability challenges require the individual, education and society to adopt new ways of thinking, learning and acting. Calls for transformation, supported by supranational organizations, have contributed to an increased focus globally on competence-oriented knowledge in curricula. Ethical competence, action readiness, and normative competence are nested concepts explored theoretically in this thesis. *Philosophizing with* is a central method, which invites epistemology as a voice into the analysis. Transdisciplinary and pluralistic ESD allow for ethical issues to surface in the classroom. It is theorized that an ESD teacher needs to be both morally sensitive and ready to transform didactics in the teacher-learner nexus. One conclusion is that students' sophisticated epistemic beliefs may be important antecedents in transdisciplinary ESD. Another is that the element of action in the conceptualization of competence remains a critical aspect for educational research and practice.