

Challenges and chances of university lecturers' heterogeneity regarding education for sustainable development

The importance of education for sustainable development (ESD) as an educational concept is nationally and internationally widely accepted in frameworks and action programmes, such as the UNESCO (2020) "ESD for 2030" framework. Higher education institutions (HEIs) are influential stakeholders in this process. For HEIs to transform themselves, the society and the economy, the lecturers play a key role. They educate the decision makers, teachers and innovators of tomorrow: In this regard, they are change agents for every part of our society and economy. Without them, neither highly engaged students nor motivated leaders are able to change their HEI in terms of a whole institution approach.

The lecturers as change agents do need a strong basis to fulfil this role. This is high-demanding as most of them experienced a discipline-specific education themselves. For ESD to be adequately implemented at universities, two prerequisites concerning the lecturers must be given: First, they need to acquire the relevant knowledge with regard to sustainable development and what role their discipline plays in there. Second, they need to have an adequate pedagogical basis to convey their students what ESD actually means: capacity-building and the empowerment to contribute to a just and sustainable society in all areas of life, including the economy.

As there is evidence that personal prerequisites determine one's learning (e.g. Kolb & Kolb 2013), university lecturers as learners need differing approaches for a successful professional development programme. These individual characteristics are even more of relevance in the context of ESD that always includes normative questions. Several studies have proven the relevance of values and attitudes of university lecturers for the implementation of sustainable development and especially ESD at HEIs (e.g. Down 2006; Jones et al. 2008; Velazquez et al. 2005). Few typologies of university lecturers exist, but most often they do not focus on ESD as an educational concept, rather they look at lecturers' attitudes towards sustainability at universities as such (e.g. Shephard & Furnari 2013; Sylvestre et al. 2014). Additionally, these typologies often only include lecturers from one specific university (e.g. Cotton et al. 2007).

That is where our research ties in. The overall objective is to develop learner-centred professional development formats on ESD. For this, different predispositions of university lecturers need to be considered. This can be done by looking at their prior knowledge and individual attitudes. Hence, the main research question is "*Can university lecturers be divided into distinct groups based on their attitude towards and knowledge of ESD?*" A standardised quantitative study among lecturers in Germany, from different types of universities, status groups and disciplines, builds the core. It shows that there is measurable heterogeneity, but not in all aspects that are considered. We see differences between the attributed relevance of ESD and who is held responsible for the implementation.

The research lab will be designed in a quiz-like format. We will compare the results of our study with the expectations and conceptions of the audience and discuss where possible divergences may come from. Are they country- or sample-specific? What consequences can be drawn from that? We want to discuss with the audience how that influences professional development for university lecturers. For that, we will also share our experiences from professional development workshops where the exchange across disciplinary boundaries is almost always put forward as a strength and very profitable. How can heterogeneity be addressed and how can we best profit from this heterogeneity?

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