

TITLE: Training faculty in Sustainability Education with the Pedagogical Pattern Approach

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Abstract

The Pedagogical Pattern Navigator in Education for Sustainable Development (ESD) is a training and support approach for faculty to enhance their teaching and students learning in Sustainability Education in a participatory way. It takes up the phenomenon, that quite a lot of descriptions of recommended learning designs for ESD are accessible, but teaching faculty does not make use of these examples and curated collections. Using Pedagogical Patterns faculty can enhance their teaching based on typical orchestration of aligned learning objectives, teaching methods and assessment designs. The Pedagogical Pattern Approach helps faculty to use pre-selected typical didactical structures as base for their individual design (Kohls 2017). It aims to align learning objectives, pedagogical methods, and assessment criteria (Biggs 2014), addressing certain needs or specific problems in ESD in Higher Education. Faculty teaching training follows so the idea, that it is easier for faculty to design their teaching based on typical pre-arranged packages of didactical decisions, instead of singular elements, which must be aligned. The approach of pattern language, originating from architecture, by Christoph Alexander, is thereby made usable in and for pedagogical design in ESD. Pedagogical patterns go beyond the description of pedagogical methods or course planning schema. They show where and why they should be used. They provide further insights into justifications and into the connections between needs and problems and solutions.

Based on literature review regarding the definition of learning goals in ESD including different catalogues of learning objectives (e.g., Rieckmann 2017, Bianchi 2020) we developed a first categorization. Through the analysis of the different learning objectives, we categorized them according to the different problems and needs gained from interviews with faculty. We used the same approach regarding the analysis of pedagogical methodologies, which have been proven to be applicable for ESD (e.g., Evans, Mujis & Tomlinson 2015) and assessment instruments (e.g. rubrics (McConnell et al. 2019) in ESD). A prototype was developed, and pilot tested. Further tests and feedbacks from faculty are planned.

For the discussion

Phase I: Opportunities and Risks in working with a Pedagogical Pattern Approach in training teaching faculty.

Phase II: Benefits and Limitations of the Pedagogical Pattern Navigator in Sustainability Education

Phase III: Requirements and added value of the further development of the Pedagogical Pattern Navigator in Sustainability Education