

## **Mutual interdisciplinary understanding as a key characteristic of learning in heterogeneous student groups**

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Dependence of the modern society on non-renewable fossil fuel resources and especially environmental and economic consequences of their use make people become increasingly aware of the necessity to take steps towards more sustainable alternatives. Although “bioeconomy” is still a buzz word for a layperson, the concept, which implies the shift to production based on renewable bio-resources, has been spreading rapidly, particularly in Europe and the US. Large enterprises adopt the concept, start-ups are launched in the field. Therefore, there is a need of a new type of specialists who can successfully work at the crossroad of production and market, or “bio” and “economy”. Higher education institutions respond to the respective demand in environmental study programs, which are supposed to prepare graduates who have capacities simultaneously in several fields. However, both studying and teaching an interdisciplinary course can be a big challenge. One of the usual prerequisites of such programs is diverse academic background of prospective students in order to increase exchange of expertise from different areas. On the one hand, such heterogeneity fosters scholars` academic performance, but, on the other hand, it leads to additional disturbances.

In my master thesis, I raise the questions of what interdisciplinary learning is, how it takes place and which factors have impact on the process. In order to answer the questions, a case study of the MSc Bioeconomy, the first of its kind of master`s in Europe, which was created by the University of Hohenheim, is utilized. In particular, I analyze how students understand their heterogeneity and perceive interdisciplinarity in the study process, whether they face challenges and, if yes, how they cope with them.

In order to arrange the factors influencing the learning process in the context of interdisciplinarity, a comprehensive literature review was done and a conceptual framework was elaborated. The empirical part of the thesis was conducted mainly based on a semi-structured questionnaire for Bioeconomy students and also on several workshops for the teaching staff responsible for the study program.

The results of the research prove that learning itself is a very individual process and therefore depends to a large extent on personal characteristics. Heterogeneity is

considered by students to a large degree as a positive aspect. Nevertheless, when it comes to learning under the additional conditions of very broad conceptual background, overwhelming content and collaboration in a heterogeneous group, it can also hinder achieving learning competences and hence lead to students` vexation.

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