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**Interdependencies between teaching engineering skills and heterogeneous concept modelling for sustainable products – Findings based on an experimental study**

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**Abstract**

In this paper, an experimental study on teaching engineering skills and comprehending heterogeneous concept modelling is presented. By the help of predefined model elements on different levels of abstraction, a single modelling plane and a methodology including complementary actions, a novel approach is applied by different probands, which are classified beforehand into specific groups. Analysing the conducted experiments in this preliminary study, strong interdependencies between the available engineering skills and the usage of this methodology were found. Several important conclusions are drawn for further improvement of the teachability of the approach, the individually needed assistance of different proband groups as well as the experimental design.