Active learning in practice: Implementation of the principles of active learning in an engineering course

The most common form of teaching is still the form where a teacher presents the subject of the lecture to a listening audience. During teaching history this has proved to be an effective way of teaching, however the probability of students being inactive is high and the learning outcome may be small for these students. An alternative teaching method is "Active Learning" and in the autumn 2015 we implemented this method to a 5 ects. course of "Material Science". What we wanted to examine was: • How can Active Learning be implemented in the Material Science course • Is it possible to get through the same curriculum as usual during a term? • Will Active Learning reduce failure rate? • Will Active Learning give a higher learning outcome than traditional teaching? This paper deals with the results of this experiment, answers the mentioned questions and presents a way to implement Active Learning.

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