Signs of teaching that scaffolds deeper learning

Majken Korsager, Maria Gaare Dahl, Aud Ragnhild Skaar, Berit ReitanMerethe Frøyland

Norwegian Centre for Science Education, University of Oslo

In this study, we present and demonstrate an analytic framework of teaching that scaffolds deeper learning. The framework is based on literature that describes common characteristics of teachers who facilitate deep learning in teaching. These characteristics are systematised into four categories: stance towards teaching, level of pedagogical knowledge, view on discipline, and teachers' level of knowledge of the discipline. Furthermore, each category has a set of indicators that describe signs of teaching that facilitate deep learning. To empirically validate the framework, we analysed two teachers' teaching while carrying out an inquiry-based learning activity with their primary school students. The data material consisted of observations and video recordings from six groups of five to six students. The coding

of the transcript from the video recordings and observations was an iterative process including inductive and deductive phases applying and validating the analytic framework. Even though some of the indicators in the framework could not be observed, the study demonstrates that using the indicators within the various categories, it is possible to gain insight into details about teachers' practice in the classroom in terms of deeper learning. Based on this study, we believe that the framework can serve both as an analytical lens for research in deep learning and as a tool to enlighten teachers and support them in mastering the art of teaching that scaffolds deeper learning and thereby educating citizens with skills for the future.