EXPLORING THE QUALITY OF INQUIRY-BASED SCIENCE - DEVELOPING A FRAMEWORK FOR VIDEO ANALYSIS

Abstract

In this paper we explore and discuss frameworks and research design for studying the quality of inquiry-based activities in science classes. The research project LISSI (Linking Instruction in Science and Student Impact) aims to develop a solid knowledge base for understanding classroom practices and how different forms of inquiry instruction is connected to students' meaning making in science. With video studies from classrooms; data from questionnaires; and tests, the LISSI-project seeks to provide an extensive evidence-based foundation for exploring relations between students' learning and teachers' instruction in science; the context in which teachers work and resources available in the learning situation. This paper is initiated as part of the LISSI-project. Our aim is to build on and further develop video research design and framework for video analysis, in order to also compare and relate to former and future video studies in science and other school subjects. Our design builds on national video studies as PISA+; Budding Science and Literacy; and LISA. Our video analysis framework builds on PLATO; EQUIP; and Budding Science and Literacy. Results from the video analyses will be presented. We argue for the need of flexible video designs and frameworks for including more transdisciplinary; future oriented; and student active learning activities.