Abstract
This thesis contributes to the knowledge about the role of sociocultural resources in students’ learning in Science Education. In the analyses, both individual experiences and situation are taken into account. Different sociocultural resources – the teacher, artefacts and texts – that students encounter in educational settings are focused with the aim to study what role they play for which meaning making is made possible and relevant. To study these encounters, a pragmatist approach called practical epistemology analysis – i.e. an analysis of what students use as relevant information, valid questions and relevant attentiveness – is used and advanced. The empirical material consists of video recordings from Science Education classrooms in Swedish compulsory school. The first paper is an introduction to the line of work subsequently performed. In the second paper, a method for analysing the role of teaching for students’ meaning making – epistemological moves analysis – is developed and illustrated. This method focuses on those actions of the teacher that have a function of influencing what direction students’ learning takes. In the third paper, the practical epistemology approach is applied in order to clarify, within a sociocultural understanding of learning, the role of the interplay between students’ prior experiences and the use of artefacts in students’ meaning making. In the fourth paper, the practical epistemology approach is applied as a method for investigating the role of instructional texts in laboratory settings for students’ meaning making. The thesis shows how individual continuity can be understood and analysed within a sociocultural perspective on learning. The developed methods make it possible to study learning as constituted in action without ascribing teachers, artefacts or texts a pre-determined meaning prior to their use in a practice. The results show that the way sociocultural resources are made intelligible by the students shapes the conditions for further meaning making.