

Institutionen för pedagogik, kommunikation och lärande

När fysik blir lärområde i förskolan

av

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AKADEMISK AVHANDLING

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Abstract

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This dissertation includes four separate empirical studies, and is directed towards what happens when physics becomes a learning area in preschool. It is about children and preschool teachers exploring and working with physical phenomena such as friction, sound, floating and sinking. The study is anchored within a cultural-historical perspective which highlights communication and interaction in social contexts and that learning takes place in all types of practices in which the child participates. By the use of a videorecorder, a range of activities conducted in Swedish preschools constitutes the sampled data material. The first study is about children's opportunities to learn about the phenomenon of friction in preschool, the second look into how preschool teachers alters between the context and the concepts and in which way this contributes to emergent science about sound. The third, and the fourth studies aims to generate knowledge about the ways in which children's understanding of floating and sinking are expressed and how the teacher foregrounds the science content in the same activity.

Together the studies' findings show that abstract phenomena are concretized by the children and teachers in interaction and that there are different characteristics of children's encounters with physical phenomena. Further the studies' show that establishing intersubjectivity and expanding children's initial explorations are of importance. The preschool teachers take responsibility for the content without limiting children's opportunities to participate and influence the activities. This means that children and preschool teachers try a variety of pathways in a supportive and moderately challenging environment. Thereby children's emergent science is supported and physics is constituted as a learning area.