



Brief

Pre-service kindergarten teachers' reflections over children's multisensory exploration in scientific dialogues

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Exploratory conversations are central to children's language development and learning. Nevertheless, studies from Norwegian kindergartens show that awareness of the learning potential of exploratory conversations varies, and that the incidence of this type of conversation is low. An important part of exploratory talk with young children is to make room for the children to explore sensory. When children explore the world around them, they use their body and senses. The purpose of this article is to explain the students' perspectives on the children's multisensory exploration in conversation. The research question is: What are PSKT students' perspectives on children's multisensory exploration as a component in the interaction involved in scientific dialogues?

The theoretical framework that is used to explain these reflections and dialogues consists of amongst others: Maurice Merleau-Ponty's body phenomenology, Michael Halliday's perspectives on the role of situational context, inquiry-based teaching, Iram Siraj-Blatchford's concept sustained shared thinking and John Dewey's concept of observation and experience and the role of productive questions in science dialogues.

The article presents a case study of transcribed conversations among three second year pre-service kindergarten teacher (PSKT) students on the subject of scientific dialogues with kindergarten children aged 2.5–4 years. The study also explores the students' reflections on these dialogues. NVivo was used to perform thematic coding analysis, where themes were developed as part of a latent approach.

The findings show that the students, through video analysis of themselves, became more aware of how they could have better followed up the children's sensory impressions and

brought them into the conversations. Students point to situations where the possibility for exploration in this way: They do not wait long enough for the child to respond, they shift the focus of the conversation, and instead of asking hypothesis-forming questions they should ask questions related to the multisensory exploration. In one of the cases where successful exploration was indicated, it is pointed out that the student let the child use its senses, and that she shared the joy and genuine engagement of the experiment going on. The findings also show that productive questions that entail careful observation are a way of tackling children's multisensory exploration, but that the hypothesis-forming questions that are often used do not contribute to more exploration in the conversation. By emphasising the multisensory exploration's place in the interaction, focussing on sustained shared thinking and practice, and reflecting on dialogues, students can gain an understanding of how best to approach scientific conversations with children.

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