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Exploring changes in young children's conceptions of written numerals in the world around them

Voutsina, Chronoula; Stott, Debbie

Southampton Education School, University of Southampton

We will present findings from a study that examined preschool children's conceptions of the meanings and social uses of written numerals in everyday contexts. 33 children and their families participated in three cycles of data collection. In each cycle, with their family's support, children played a Number Spotting game, taking photographs of written numbers in their everyday life. These photographs, alongside other photographs of numerals on everyday objects selected by the researchers, were used in individual photo-elicitation interviews with children. We collected data on children's interpretations of a range of written numbers denoting order, measurement, quantity, and numbers used as labels/identifiers. The data have been analysed with a combination of a phenomenographic approach to analysis (cycle 1) and framework analysis (subsequent cycles). In this presentation, we will share our preliminary observations about changes in children's conceptions of written numerals across cycle 1 and cycle 2 of data collection. We will discuss examples that illustrate the kinds of knowledge that children draw from, to make sense of and communicate the meanings and purposes of written numbers around them. The findings can inform pedagogical activities that aim to develop children's awareness and understanding of the uses of numerals in everyday life.