

Granone, F. & Reikerås, E. (2023). Teachers' support for children's mathematical learning through interactions while playing with a coding toy. *Nordic Studies in Mathematics Education*, 28(3-4), 55–76.

Abstract

This study examines how early childhood education and care teachers can support children's mathematical learning in the context of playing with a coding toy (a robot). Video recordings of the interactions that occurred between a teacher and four 3- to 5-year-old pupils while they played with a robot (three hours per week over the course of a month) were analysed based on the theoretical framework of semiotic mediation for mathematics education. The results highlight the fact that the coding toy can be viewed as an artefact for accomplishing a didactic mathematical objective through teacher support, including factors such as problem-solving, counting and measuring.

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Francesca Granone is an Associate Professor in mathematics at Early Childhood Education department, University of Stavanger. Her research interests are on children's mathematical thinking, outdoor mathematics, and inclusive research. She leads two research projects, one about mathematics and technology (DiCoTe project) and one about mathematics and inclusion (VerDI) where the methodology of inclusive research is applied.

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