ZMATH 2015a.00235

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Young children's multimodal mathematical explanations.

ZDM, Int. J. Math. Educ. 46, No. 6, 895-909 (2014).

Summary: This paper investigates how three children provided mathematical explanations whilst playing with a set of glass jars in a Swedish preschool. Using the idea of semiotic bundles combined with the work on multimodal interactions, the different semiotic resources used individually and in combinations by the children are described. Given that the children were developing their verbal fluency, it was not surprising to find that they also included physical arrangements of the jars and actions to support their explanations. Hence, to produce their explanations of different attributes such as thin and sameness, the children drew on each other's gestures and actions with the jars. This research has implications for how the relationship between verbal language and gestures can be viewed in regard to young children's explanations.

Classification: C51 C71
Keywords: multimodal experiences; mathematical explanations; interaction; gestures; language
doi:10.1007/s11858-014-0614-y