

ZMATH 2014c.00699

Schliemann, Analúcia D.; Carraher, David W.; Goodrow, Anne; Caddle, Mary C.; Porter, Megan

Equations in elementary school.

Lindmeier, Anke M. (ed.) et al., Proceedings of the 37th conference of the International Group for the Psychology of Mathematics Education “Mathematics learning across the life span”, PME 37, Kiel, Germany, July 28–August 2, 2013. Vol. 4. Kiel: IPN–Leibniz Institute for Science and Mathematics Education at the University of Kiel (ISBN 978-3-89088-290-1). 161-168 (2013).

Summary: Although it is generally recognized that algebra has a role to play in the early mathematics curriculum, the issue of whether elementary school children are developmentally ready to use algebraic notation and to understand the syntactical rules of using algebra for solving equations is still a matter of debate. We examine, at the end of a third- to fifth-grade (8 to 11 years) intervention using a functional approach to algebra, how students try to solve word problems they represent as equations containing the same single variable on each side of the equals sign.

Classification: H32 H33 F92 F93

Keywords: equations; algebra; algebraic notion; solving equations; functional approach; word problems