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**Depaepe, Fien; De Corte, Erik; Verschaffel, Lieven**

**Students' non-realistic mathematical modeling as a drawback of teachers' beliefs about and approaches to word problem solving.**

Pepin, Birgit (ed.) et al., From beliefs to dynamic affect systems in mathematics education. Exploring a mosaic of relationships and interactions. Cham: Springer (ISBN 978-3-319-06807-7/hbk; 978-3-319-06808-4/ebook). Advances in Mathematics Education, 137-156 (2015).

Summary: Over the past decades numerous scholars have become aware of many compelling observations of students in mathematics classes abandoning their sense-making capabilities when doing word problems, and, in particular, carrying out arithmetic calculations that do not make sense in relation to the situations described. This led us, together with several other scholars, to embark upon an extended investigation of the phenomenon, the results of which are reported, among others, in two books [*L. Verschaffel* et al., Making sense of word problems. Lisse: Swets and Zeitlinger (2000; ME 2000c.01876); *L. Verschaffel* (ed.), Words and worlds. Modelling verbal descriptions of situations. Rotterdam: Sense Publishers (2009; ME 2013e.00699)]. The goal of the present chapter is to bring together and critically review the theoretical analyses and empirical studies that have focused on major aspects of teachers' instructional practices that affect – directly or indirectly – students' non-realistic approaches to and beliefs about word problem solving. Special attention will be given to the problems that appear in students' mathematical textbooks as well as to teachers' beliefs about word problems and what are appropriate ways to solve them, and to their instructional behavior, and how these factors affect students' beliefs about and approaches to word problems. While the focus is on research that has been done in our own center, we also integrate relevant studies by others.

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