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Problem solving methods for mathematical modelling.

Stillman, Gloria Ann (ed.) et al., Mathematical modelling in education research and practice. Cultural, social and cognitive influences. Cham: Springer (ISBN 978-3-319-18271-1/hbk; 978-3-319-18272-8/ebook). International Perspectives on the Teaching and Learning of Mathematical Modelling, 173-183 (2015).

Summary: Providing a method for problem solving can support students working on modelling tasks. A few candidate methods are presented here. In a qualitative study, one of these problem solving methods was introduced to students in grades 4 and 6 (Germany), to be used in their work on modelling tasks. The students were observed as they worked and were subsequently interviewed. The results reveal differences between grades, and widely varying problem solving processes. The differences in written final solutions are considerably less pronounced.

Classification: M12 M13 D52 D53

Keywords: modeling; problem solving; competencies

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