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Pre-service teacher learning for mathematical modelling.

Stillman, Gloria Ann (ed.) et al., Teaching mathematical modelling. Connecting to research and practice. Dordrecht: Springer (ISBN 978-94-007-6539-9/hbk; 978-94-007-6540-5/ebook). International Perspectives on the Teaching and Learning of Mathematical Modelling, 395-404 (2013).

Summary: Evidence has shown that teachers in South Africa often lack the capacity to both connect their mathematics to real-life contexts and struggle to see the internal connections between mathematical concepts. Situating our argument within the ‘critical competence’ and ‘utility’ perspectives, we focus on pre-service teachers’ initial mathematical modelling competencies in a professional development course. Using the notion of modelling competencies with specific reference to the didactic modelling process, we argue that the pre-service teachers’ initial mathematical modelling competencies are at early stages of development.

Classification: M19 C39 B50

Keywords: modeling; pre-service teachers; real-life problems; mathematical concepts; modelling competencies; mathematisation

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