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Initial perspectives of teacher professional development on mathematical modelling in Singapore: a framework for facilitation.

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, 427-436 (2013).

Summary: Challenges exist for the incorporation of modelling tasks in Singapore mathematics classrooms particularly due to the open-ended, interdisciplinary nature of such tasks. This chapter presents a preliminary teacher facilitation structure developed for initial professional development in an outreach programme for mathematical modelling in Singapore primary and secondary schools. Findings on teacher readiness in facilitating students' mathematical thinking, reasoning, and communication during mathematical modelling will be discussed.

Classification: M10 C30 B50

Keywords: modelling; professional development; facilitation; students' mathematical thinking; students' communication; students' reasoning

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