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Challenges in modelling challenges: intents and purposes.

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, 217-227 (2013).

Summary: Extra curricular modelling events for school students are increasing in popularity. The experience from the perspective of participating Australian and Singaporean year 10 and 11 students in one such event, the A. B. Paterson College mathematical modelling challenge, is investigated. The aim is to gauge whether their experience meets the intended purposes of mentors that the whole event be considered an inherently valuable learning experience about modelling and application of mathematics to real situations. Findings from a questionnaire and other data included motivation for choice of situation to model, decision making about approach, and reporting of findings were mainly goal oriented rather than performance oriented, despite the challenge ostensibly being a competition.

Classification: M10 B60

Keywords: modelling; challenges; extracurricular events; motivation; learning outcome
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