ZMATH 06675751

Leong, Yew Hoong; Tay, Eng Guan; Toh, Tin Lam; Quek, Khiok Seng; Toh, Pee Choon; Dindyal, Jaguthsing

Infusing mathematical problem solving in the mathematics curriculum: replacement units.

Felmer, Patricio (ed.) et al., Posing and solving mathematical problems. Advances and new perspectives. Cham: Springer (ISBN 978-3-319-28021-9/hbk; 978-3-319-28023-3/ebook). Research in Mathematics Education, 309-325 (2016).

Summary: There are many reports on how problem solving is successfully carried out in specialised settings; relatively few studies report similar successes in regular mathematics teaching in a sustainable way. The problem is, in part, one of boundary crossings for teachers: the boundary that separates occasional (fun-type) problem solving lessons from lessons that cover substantial mathematics content. This chapter is about an attempt to cross this boundary. We do so by designing "replacement units" that infuse significant problem solving opportunities into the teaching of standard mathematics topics.

Classification: D50 D30
doi:10.1007/978-3-319-28023-3_18