

**ZMATH 2016a.00373**

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

**Mathematical problem solving for everyone: infusion and diffusion.**

Leong, Yew Hoong (ed.) et al., Making mathematics more practical. Implementation in the schools. Hackensack, NJ: World Scientific (ISBN 978-981-4569-07-1/hbk). 1-21 (2014).

Summary: Mathematical problem solving as the centre of mathematics learning has been the vision of the Singapore school mathematics curriculum since the 1990s. Enacting it in a school curriculum has remained a difficult enterprise. Mathematical Problem Solving for Everyone (MProSE) was a design experiment project that successfully implemented a problem solving module, based on the model described by *G. Pólya* [How to solve it. Princeton, NJ: Princeton University Press (1945)] and enhanced with *A. Schoenfeld's* [Mathematical problem solving. Orlando, FL: Academic Press (1985)] observations, in an Integrated Programme school. MProSE: Infusion and Diffusion (MInD) is a new project that intends to adapt the MProSE design to a number of mainstream schools. This chapter describes the theory underlying the MProSE design, its initial success under the MProSE project, and what needs to be done for the design to be diffused to the various schools in the MInD project.

*Classification:* D50 D30

*Keywords:* problem solving; learning; design experiment

doi:10.1142/9789814569095\_0001