This book is a professional instruction manual on how mathematical problem solving curricula can be implemented in the classrooms. The book is developed from the theoretical work of G. Pólya [How to solve it. A new aspect of mathematical method. Princeton, NJ: Princeton University Press (1945; Zbl 0061.00616)]. It explains how these can be adapted for (actual) implementation in schools and exposes the results of the work of a group of researchers from the Singapore National Institute of Education, after experimenting with it in the Singapore school classrooms. It underlines the importance of building the teachers’ problem-solving and teaching ability. This book includes a set of work schemes, lesson plans and a choice of mathematics problems that teachers can actually use in teaching problem-solving. Certain didactical considerations are developed and suggested in this book. In addition, the book includes an assessment framework on how mathematical problem solving can be assessed.

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