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Challenging and changing mathematics teaching classroom practices.

Bishop, Alan J. et al., Second International Handbook of Mathematics Education. Pt. 1 and 2. Kluwer, Dordrecht (ISBN 1-4020-1008-7). 643-687 (2003).

This chapter summarizes general factors influencing change, and discusses matters which need to be considered by those working to achieve change in mathematics teaching practices. In the first section, we discuss two major sources of impetus for teacher change: (1) values and beliefs, and (2) technological advances. In the next two sections we explore the question: What important considerations in implementing planned changes in mathematics teaching are suggested by the existing body of knowledge? We focus on two seemingly essential dimensions of any planned effort to change teacher classroom practices: organizational approach and the nature of the professional development. Examples presented in the text are drawn from a variety of countries. We conclude with comments on the role of the specific goals of the planned change in framing the professional development and in assessing the change effort, and on the impact of culturally based views on the goals, content and availability of professional development. We acknowledge, throughout this chapter, that when considering research on either challenging or changing mathematics teaching classroom practices, readers should remember that care needs to be exercised in generalizing conclusions reached in one culture to another. (Authors' abstract)

Classification: D30 C70 B50

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