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Problem solving as a challenge for mathematics education in The Netherlands.

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Summary: This paper deals with the challenge to establish problem solving as a living domain in mathematics education in The Netherlands. While serious attempts are made to implement a problem-oriented curriculum based on principles of realistic mathematics education with room for modelling and with integrated use of technology, the PISA 2003 results suggest that this has been successful in educational practice only to a limited extent. The main difficulties encountered include institutional factors such as national examinations and textbooks, and issues concerning design and training. One of the main challenges is the design of good problem solving tasks that are original, non-routine and new to the students. It is recommended to pay attention to problem solving in primary education and in textbook series, to exploit the benefits of technology for problem solving activities and to use the schools' freedom to organize school-based examinations for types of assessment that are more appropriate for problem solving.

Classification: D60 D30

Keywords: problem solving; realistic mathematics education; curriculum development; educational technology; schoolbooks; assessment

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