

ZMATH 2011e.00443

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Didactical variability in teacher education.

Zaslavsky, Orit (ed.) et al., Constructing knowledge for teaching secondary mathematics. Tasks to enhance prospective and practicing teacher learning. Berlin: Springer (ISBN 978-0-387-09811-1/hbk; 978-0-387-09812-8/ebook). Mathematics Teacher Education 6, 103-115 (2011).

Summary: It can be often observed that some school students can use taught knowledge in new contexts, while others although familiar with the taught algorithms are not able to apply their knowledge in new contexts. The chapter starts from this observation. The main focus is consideration of these inter-personal differences as an effect of the teachers' didactical variability (Sarrazy 2002) in the domain of word problems. Students of teachers with weak didactical variability in the domain of word problems are strong in standard problems, while those of teachers with advanced didactical variability may be weaker in them but better performing when solving non-standard, non-algorithmic problems (see e.g. Novotná, J., & Sarrazy, B. (2009). Teacher's didactical variability and its role in mathematics education. In: Proceedings of CERME 6. Lyon, in print). The text deals with the crucial question how to increase teachers' didactical variability.

Classification: D49 C39 B50

Keywords: didactical situation; didactical contract; didactical variability; conditions for the use of algorithms; dialectic tool-object; learning; transfer of training; problem solving strategies; preservice teacher education
doi:10.1007/978-0-387-09812-8_7