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Teachers' conceptions of mathematical word problems: A basis for professional development.

Pateman, Neil A. et al., Proceedings of the 27th Conference of the International Group for the Psychology of Mathematics Education held jointly with the 25th Conference of PME-NA. Vol. 1-4. ,. 197-204 (2003).

This paper reports on a study of mathematics teachers' thinking in the teaching of contextual or word problems (WP) with particular focus on teachers' conceptions of WP and the relationship to teaching. The 20 participants included Grades 1-12 preservice and inservice teachers. Data consisted of interviews and classroom observations. The findings indicated 8 ways in which the teachers conceptualized WP, e.g., WP as object and experience, and a model of WP as a nesting of mathematics and social contexts. These conceptions played a significant role in framing their teaching of WP in terms of 4 teaching perspectives, including a paradigmatic and a phenomenological approach. Implications for teacher development based on the findings are also discussed.

Classification: B50 F99 D40