

ZMATH 2016f.00971

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Using the Singapore bar model to support the interpretation and understanding of word problems in key stage 2.

Adams, G. (ed.), Proceedings of the British Society for Research into Learning Mathematics (BSRLM). Vol. 35, No. 3. Proceedings of the day conference, University of Reading, UK, November 7, 2015. London: British Society for Research into Learning Mathematics (BSRLM). 114-119 (2016).

Summary: The research project was conducted in a large junior school where children, normally confident with calculation, experience difficulties with the interpretation of word problems. The Singapore Bar model was chosen to provide a clear visual representation in order to support all children identifying the underlying structure of word problems, and would hopefully narrow the gap between the genders. The areas in which it was most commonly used were problems involving fractions, 2-step money problems and division. It was found that children valued the model more in areas of mathematics that were difficult and new to them, and where they felt less confident.

Classification: F92 D52 F32 F42

Keywords: primary education; junior school; educational research; word problems; bar modelling; problem solving; learning problems; visualisation; fractions; money; division; gender differences

<http://www.bsrlm.org.uk/IPs/ip35-3/BSRLM-IP-35-3-20.pdf>