ZMATH 2015c.00450

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The influence of graphics in mathematics test item design.

Oesterle, Susan (ed.) et al., Proceedings of the 38th conference of the International Group for the Psychology of Mathematics Education "Mathematics education at the edge", PME 38 held jointly with the 36th conference of PME-NA, Vancouver, Canada, July 15–20, 2014, Vol. 3. [s. l.]: International Group for the Psychology of Mathematics Education (ISBN 978-0-86491-360-9/set; 978-0-86491-363-0/v.3). 209-216 (2014).

Summary: This study investigated the performance and reasoning of 143 Australian students who completed mathematics tasks sourced from their national test. Specifically, this study examined changed student performance and reasoning on items where the graphic component was modified. The results of the study revealed significant performance differences between the original and modified items and provided insight into how these modifications influenced student reasoning.

Classification: D60 D50
Keywords: test item design; influence of graphics; assessment; perfomance differences; problem posing