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To change or not to change: adapting mathematical knowledge for teaching (MKT) measures for use in Korea.

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Summary: This paper examines challenges in adapting mathematical knowledge for teaching (MKT) measures developed in the United States for use in Korea. After an initial analysis of candidate issues regarding the “fit” of items to the Korean context – whether items were familiar, authentic, and realistic as characterized by *S. Delaney* et al. [J. Math. Teach. Educ. 11, No.3, 171–197 (2008; ME 2009c.00095)] – we adapted and administered an instrument developed by the learning mathematics for teaching project with 93 Korean teachers and conducted follow-up interviews with nine teachers. Based on analysis of this data, we conducted a second round of revision and then administered the revised test to 101 Korean teachers. Results showed that small modifications that were made to increase fit often increased teachers’ performance on the items as expected, but the impact of changes was at times difficult to interpret. For several items, modifications introduced unanticipated validity issues. The paper discusses dynamics that arise in making changes to MKT items – in particular, the tension in modifying items to increase the fit to specific educational contexts while maintaining validity.

Classification: B50 D69

Keywords: teacher knowledge; mathematical knowledge for teaching; item translation and adaptation; Korea
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