

ZMATH 2012e.00149

Ng, Dicky

Using the MKT measures to reveal Indonesian teachers' mathematical knowledge: challenges and potentials.

ZDM, Int. J. Math. Educ. 44, No. 3, 401-413 (2012).

Summary: The purpose of this study was to examine the adaptability of the US-based mathematical knowledge for teaching (MKT) geometry measures for use to study Indonesian elementary teachers' MKT geometry. We selected the geometry scales form A and form B, and then adapted the items using a framework developed by *S. Delaney* et al. [J. Math. Teach. Educ. 11, No.3, 171–197 (2008; ME 2009c.00095)]. We administrated the adapted learning mathematics for teaching measures to 210 elementary and middle school teachers. During translation and adaptation of the measures, issues arose regarding the mathematical substance of the items related to the use of inclusive and exclusive definitions of shapes. Psychometric analyses confirmed that these items were more difficult for the Indonesian elementary teachers compared to the US sample. Implications for future direction for item adaptation to measure Indonesia teachers' MKT are presented.

Classification: B50 D69 C69

Keywords: cross-national comparison; teachers' mathematical knowledge; instrument translation and adaptation; Indonesia; geometry

doi:10.1007/s11858-011-0375-9