

**ZMATH 2014e.00200**

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**Teachers' learning journeys toward reasoning and sense making.**

Lo, Jane-Jane (ed.) et al., Research trends in mathematics teacher education. Selected papers based on the presentations at the 34th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, PME-NA, Kalamazoo, MI, USA, November 1–4, 2012. Cham: Springer (ISBN 978-3-319-02561-2/hbk; 978-3-319-02562-9/ebook). Research in Mathematics Education, 155-180 (2014).

Summary: Despite ongoing recommendations by NCTM over the past 30 years, research points to a persistent deficit between national recommendations and classroom practice. Consideration of teachers as learners, and the examination of underlying issues, are critical to addressing this deficit. The purpose of this study was to investigate seven teachers' experiences attempting to align their practice with a recent iteration of NCTM recommendations, [*M. W. Gary et al., Focus in high school mathematics: reasoning and sense making. Reston, VA: NCTM (2009; ME 2011a.00423)*]. Narrative inquiry, designed for the study of experience, is used to illustrate the complexity of teachers' changes through the perspective of the teacher. Findings, presented through four mathematical analogies, illustrate teachers' varied experiences moving through stages of the change process. This research is timely and relevant to teacher educators working with prospective and practicing high school mathematics teachers. An understanding of teachers' experiences attempting changes informs the consideration of ways of supporting other teachers in enacting similar changes.

*Classification:* C39 C29

*Keywords:* professional development; high school mathematics; reasoning; sense making; teacher change; experience

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