

ZMATH 2015c.00070

Chang, Yu-Liang (Aldy); Wu, Su-Chiao (Angel)

Is a mathematics teacher's efficacy influential to their students' mathematics self-efficacy and mathematical achievement.

Nicol, Cynthia (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. 2. [s. 1.]: International Group for the Psychology of Mathematics Education (ISBN 978-0-86491-360-9/set; 978-0-86491-362-3/v.2). 273-280 (2014).

Summary: The main purpose of this study was to examine the effects of fifth-grade mathematics teachers' efficacy (MTE) on their students' mathematics self-efficacy (SMSE) and mathematical achievement (SMA) in the classroom. Two instruments (for MTE and SMSE) were administered to 62 classes (62 teachers and 1283 fifth-graders) for gathering data, associated with SMA scores in school. Corresponding statistical analyses were applied to the obtained data. The findings revealed that mathematics teachers' efficacy beliefs were significantly influential to both SMSE and SMA. It also showed that MTE ratings could effectively predict SMA. Consequently, suggestions derived from findings and discussions were proposed for further improvement of these mathematics teachers' efficacy and, in turn, for enhancing fifth-graders' mathematics self-efficacy and mathematical achievement in the future.

Classification: C20 C30 C70

Keywords: teachers' efficacy; students' self-efficacy; teachers' beliefs; achievement