



Pre-Service Teachers' Beliefs About Mathematics Teaching And Learning: The Comparison Between Indonesia And Germany

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Abstract

Several studies have explored pre-service teachers' beliefs about the way to teach mathematics in classrooms. However, very few of the studies consider the effect of contexts on pre-service teachers' beliefs. This present study aims to investigate whether contexts related to students' achievements influence pre-service teachers' beliefs about teaching mathematics, especially teaching about the area of a trapezoid. The participants were 650 pre-service teachers from five universities in Indonesia and one university in Germany. The results indicate that contexts related to students' achievements on pre-service teachers' beliefs. The results show that pre-service teachers both from Indonesian and German universities significantly hold different beliefs about mathematics teaching and learning in different contexts of students' achievements (operationalized as high-achieving classes vs. low-achieving classes). For example, unsurprisingly, most Indonesian as well as German pre-service teachers consider that using problem solving in teaching the area of a trapezoid is only appropriate for high-achieving classes and apparently not appropriate for low-achieving classes. However, unlike Indonesian pre-service teachers who consider the importance of giving explanations and students' understanding from the explanations for both high-achieving and low-achieving classes, German pre-service teachers seem to consider that those in teaching the area of a trapezoid are only appropriate for high-achieving classes but not for low-achieving classes.

Keywords: *pre-service teachers; beliefs; mathematics; teaching and learning; contexts; students' achievements*