

**ZMATH 2016d.00342**

**Billings, Esther M.H.; Kasmer, Lisa**

**Micro-cycle teaching experiments as a vehicle for professional development.**

Math. Teach. Educ. Dev. 17, No. 2, 165-181 (2015).

Summary: This study used design experiments, specifically micro-cycle teaching experiments (MTE) as a catalyst for practice-based professional development. The MTE incorporated research-based characteristics of effective professional development: it was embedded in the teachers' daily work of planning and enacting lessons, co-constructed with the researcher to build upon students' knowledge, and sustained over time. Pedagogical and mathematical content knowledge were integrated into the planning, implementation, and analysis of these MTEs. In this study, we investigated: To what extent can teachers engage in a MTE as an intentional method for improving teaching? Case studies were used to analyze ways teachers engaged in MTEs and how their teaching was impacted as the result of this experience.

*Classification:* D39 D49

*Keywords:* professional development; reflection; teachers; teaching experiments; mathematical knowledge for teaching

<http://www.merga.net.au/ojs/index.php/mted/article/view/258>