

# CO-TEACHING IN MATHEMATICS EDUCATION: IMSITE PROJECT EXPERIENCE

Jana Visnovska<sup>a</sup>, Dominika Bielinski<sup>a,b</sup>

Presenting Author: Dominika Bielinski ([d.bielinski@uq.edu.au](mailto:d.bielinski@uq.edu.au))

<sup>a</sup>School of Education, The University of Queensland, St Lucia QLD 4072, Australia

<sup>b</sup>St Peter Claver College, Riverview QLD 4303, Australia

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## Problem

We report on co-teaching experience between a university-based mathematics educator (UME) and a secondary mathematics teacher (SMT) in preparing future secondary teachers of mathematics. This collaboration is part of an OLT-funded project *Inspiring Mathematics and Science in Teacher Education (IMSITE)*, which aims at enhancing teacher education by transcending traditional disciplinary boundaries. The project explores ways of combining experiences of university- and school-based mathematics educators in designing learning experiences, which are both grounded in mathematical content, and meaningful from learners' point of view. The target course was a mathematics curriculum course with focus on middle years of schooling. Majority of the 50 participating students took this course as an elective, preparing for the reality where many secondary teachers without mathematics qualification are asked to teach middle years mathematics.

## Plan

In the first semester of the collaboration, the plan was to: (a) familiarise SMT with course content, goals, and limitations; (b) familiarise UME with tools and resources currently available and actively used by QLD mathematics teachers; (c) share and compare experiences, beliefs, and practices as educators from different communities by day to day collaboration in planning, task choice and monitoring students' progress and achievements; and (d) develop collaborative reflective practices which would enable genuine, in depth discussions about pedagogies and students' mathematical understandings (Chapman, 2009; Sakonidis & Potari, 2014).

## Action

For 8 weeks of the accelerated semester, SMT and UME met on a weekly basis to discuss the goals for the week, activities prepared by UME, and possible improvements that combined the expertise of both co-teachers. The data consists of the electronic log of actual course activities and resources, as well as reflective notes by both co-teachers that focus on changes needed for future course iterations and on reflections of the collaboration. The poster will report on resulting course improvements, including updated digital tools for supporting learning, improvement of student reflection and professional reporting, and grounding all workshop activities in mathematical problem-solving.

## Reflection

Relationships and interactions between SMT and UME made the dual identities of pre-service teachers (as 'students' and as 'future teachers') more visible, helping us to shape the interactions with students more productively. Implications for the next iteration of co-teaching will be discussed, including role of mathematics and role of course assessment.

## References

- Chapman, O. (2009). Educators reflecting on (researching) their own practice. In R. Even & D. L. Ball (Eds.), *The professional education and development of teachers of mathematics* (pp. 121-126). Boston, MA: Springer.
- Sakonidis, C., & Potari, D. (2014). Mathematics teacher educators'/researchers' collaboration with teachers as a context for professional learning. *ZDM Mathematics Education*, 46(2), 293-304.

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