

## Effective Pedagog(ies) in Mathematics: The Current State of Mathematics Education Practice and Research

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Currently we find ourselves in turbulent waters within the context of mathematics education research and in debates about current policy, curriculum, and practice reform. The debate that pits ‘traditional’ approaches to teaching mathematics against ‘reform-oriented’ approaches has recently been making waves, yet these debates are certainly not new. We seek to advance our understanding of *effective pedagogies* to help researchers, policy-makers, and practitioners navigate these waters.

In Australia, the national mathematics curriculum for years F–10 aims to support students to “become confident, proficient and effective users and communicators of mathematics, who can investigate, represent and interpret situations in their personal and work lives, think critically, and make choices as active, engaged, numerate citizens” (Australian Curriculum, Assessment and Reporting Authority [ACARA], 2022). However, defining the kinds of knowledge and skills students need to achieve this goal and the pedagogical approaches that most effectively support their development remain contentious. Important work has begun advancing the debate through clarifying the positions of the two ‘sides’ of instruction. For example, Munter et al. (2015) adopted *adversarial collaboration* in which experts who held opposing views clarified their arguments about the importance and role of talk and collaboration and the nature of mathematical instructional tasks and representations. Yet we see potential to bridge the divide between these approaches rather than conceptualising them as dichotomous. To this end, there is a need to “contemplate instructional methods within the broader context of instructional goals. It is only in this context that it can be meaningful to do so” (Kuhn, 2007, p. 112). The MERGA Special Working Group for Effective Pedagogies in Mathematics invites you to this round table discussion where we will ask:

- Where are you seeing the tensions about pedagogies of mathematics in your context? For example, do concepts and procedures need to be taught before introducing problem solving tasks? What is the purpose and role of student autonomy?
- What do you see as the purpose(s) of mathematics education and what are the implications for pedagogy (and stakeholders)?
- Where are the research gaps and how do we see our work (currently or potentially) contributing to this field?

### References

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