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Professional knowledge of practising teachers of mathematics.


Summary: Teachers’ knowledge of mathematics has become a central focus of educational researchers and policy makers with conceptions of teacher knowledge continuously being transformed. Intuitively, we have known for some time what research now provides an evidence base for – that teacher knowledge matters. But exactly what knowledge matters more, and why, are more significant and vexing questions for researchers and educators to address. Consequently, attention has moved beyond looking solely at what knowledge teachers possess to why different types of knowledge are important and how that knowledge is acquired, studied and impacts on the quality of instruction. This chapter provides a critical review of research and theoretically informed perspectives on knowledge in mathematics education and development of practising teachers published by Australasian researchers from 2008–2011. Previous four-yearly reviews published by MERGA have dealt with the professional learning of practising teachers of mathematics, and as a consequence, have considered teacher knowledge. However, never before has there been an entire chapter specifically devoted to this topic – an indicator of the increased attention teacher knowledge has attracted in the past few years. While there is some inevitable overlap of content and issues relevant to the study of pre-service teachers’ knowledge of mathematics, it is beyond the scope of this chapter to address that body of research.

Classification: D29 B50 C49 C39

Keywords: professional development; pedagogical knowledge; expertise; pedagogical frameworks