

ZMATH 2011c.00197

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How deeply and how well? how ready to teach mathematics after a one-year program?

Math. Teach. Educ. Dev. 12, No. 1, 65-84 (2010).

Summary: The importance of teachers' content knowledge for effective teaching of mathematics has long been recognised. Recent national testing regimes in Australia (National Assessment Program-Literacy and Numeracy [NAPLAN]) have raised questions of the adequacy of teachers' content knowledge. This, in turn has focused attention upon the quality of teacher education programs. In this study 131 Graduate Diploma of Primary Education students undertook the 2008 Year 9 national tests of numeracy before and after a pre-service teacher education unit on mathematics education. The purpose was first to examine, upon entry to the course and then after training, their knowledge of the mathematics concepts they were likely to teach, and second to compare this knowledge with that of the students whom they would be teaching. While there was evidence of some inadequacy of entry-level mathematical knowledge, improvement over the life of the study was reported. The implications of these findings are examined in the context of a one-year graduate diploma pathway to teacher preparation. (Contains 5 tables and 3 figures.) (ERIC)

Classification: B50 D69

Keywords: preservice teacher education; teacher effectiveness; teacher education programs; numeracy; foreign countries; grade 9; high schools; secondary school mathematics; pedagogical content knowledge; teaching skills; teacher competencies; teacher certification; mathematical concepts; comparative analysis; elementary school mathematics