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Knowledge of future primary teachers for teaching mathematics: an international comparative study.

Blömeke, Sigrid (ed.) et al., International perspectives on teacher knowledge, beliefs and opportunities to learn. TEDS-M results. Dordrecht: Springer (ISBN 978-94-007-6436-1/hbk; 978-94-007-6437-8/ebook). Advances in Mathematics Education, 61-90 (2014).

Summary: This article reports the results of the Teacher Education and Development Study in mathematics (TEDS-M) that are related to prospective primary teachers' knowledge for teaching mathematics. TEDS-M was conducted under the auspices of the International Association for the Evaluation of Educational Achievement with additional support from the US National Science Foundation and the participating countries. In 2008 more than 15,000 future primary teachers, enrolled in about 450 institutions that prepare future primary teachers, were surveyed. Two domains of knowledge for teaching mathematics were assessed using items that had been developed and validated in a cross-national field trial. Large differences in the structure of teacher preparation programs are reported. Differences in mathematical content knowledge (MCK) and mathematical pedagogical content knowledge (MPCK) were also observed both within and between programs and countries. Anchor points on the MCK and MPCK scales are used to describe qualitative characteristics of knowledge for teaching mathematics.

Classification: B50 D39 C39

Keywords: international comparison; content knowledge; pedagogical content knowledge; primary teacher education; comparative education

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