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Schmidt, William; Cogan, Leland

Greater expectations in lower secondary mathematics teacher preparation: an examination of future teachers' opportunity to learn profiles.

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, 393-414 (2014).

Summary: The Teacher Education and Development Study in mathematics (TEDS-M) tested students in their final year of teacher preparation on their knowledge of mathematics undergirding secondary school mathematics (MCK). Several articles have explored the relationship between students exposure to specific opportunities to learn (OTL) in their programs to their knowledge as demonstrated on the TEDS-M assessment. Here we sought to identify the courses that virtually all future teachers took in the top-achieving (A+) TEDS-M programs. Despite the fact that the top-achieving programs came from four countries on three continents, a set of nine courses that nearly every future teacher in these programs had taken was readily evident. Requirements had a strong emphasis on calculus with a majority of the nine courses, six, being university mathematics courses. This set of courses differed dramatically in number and focus from the set of empirically identified required courses among the international bottom 25 percent of programs or the set identified among the top-achieving programs in the U.S. The relatively large number of A+ requirements and electives demonstrated a greater consistent vision for teacher preparation than the few standards identified among the international bottom 25 percent of programs. This observation led to the hypothesis that excellence, at least as its measured by the TEDS-M MCK, may have very few paths leading to it but conversely many ways to arrive at much less impressive performance.

Classification: B50 D39 D49 C39

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