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The development of beginning mathematics teacher pedagogical content knowledge.

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Summary: Recent research efforts demonstrate that teacher development programs in high-performing countries offer experiences that are designed to develop both mathematical knowledge and pedagogical knowledge. However, identifying the nature of the mathematical knowledge and the pedagogical content knowledge (PCK) required for effective teaching remains elusive. Building on the initial conceptual framework of *S. Magnusson, J. Krajcik* and *H. Borko* [“Nature, sources and development of pedagogical content knowledge for science teaching”, in: J. Gess-Newsome (ed.) and N. G. Lederman (ed.), *Examining pedagogical content knowledge*. Dordrecht: Kluwer. 95–132 (1999)], we examined the PCK development for two beginning middle and secondary mathematics teachers in an alternative certification program. The PCK development of these two individuals varied due to their focus on developing particular aspects of their PCK, with one individual focusing on assessment and student understanding, and the other individual focusing on curricular knowledge. Our findings indicate that these individuals privileged particular aspects of their knowledge, leading to differences in their PCK development. This study provides insight into the specific aspects of PCK that developed through the course of actual instructional practice, providing a lens for future research in this area.

Classification: B50 D39

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