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Pedagogical content knowledge and views of in-service and pre-service teachers related to computer use in the mathematics classroom.

Lindmeier, Anke M. (ed.) et al., Proceedings of the 37th conference of the International Group for the Psychology of Mathematics Education “Mathematics learning across the life span”, PME 37, Kiel, Germany, July 28–August 2, 2013. Vol. 3. Kiel: IPN–Leibniz Institute for Science and Mathematics Education at the University of Kiel (ISBN 978-3-89088-289-5). 217-224 (2013).

Summary: Computer use in the mathematics classroom can support the development of students’ mathematical competency through specific insightful approaches. For a best-practice framing of learning opportunities supported by computer use, mathematics teachers need specific pedagogical content knowledge (PCK), including views about computer use which are likely to filter the further development of such PCK. However, the empirical evidence base in this research domain still needs to be broadened. This paper thus reports findings from two studies about such PCK of 39 pre-service and 65 in-service teachers. The evidence suggests specific professional development needs, but also that it is possible to develop PCK related to computer use.

Classification: C39 B50 U70

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