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Effects of a research-based learning approach in teacher professional development.

Li, Yeping (ed.) et al., Expertise in mathematics instruction. An international perspective. New York, NY: Springer (ISBN 978-1-4419-7706-9/hbk; 978-1-4419-7707-6/ebook). 131-150 (2011).

Summary: The article examines the effects of teacher professional development, which follows a research-based learning approach focused on “action research” [Altrichter, H., Feldman, A., Posch, P. & Somekh, B. (2008) Teachers Investigate their Work. An introduction to action research across the professions. Routledge: London & New York]. Using integrated research methods, the study examines the extent to which the four-semester university programme, “Pedagogy and Subject Didactics for Teachers” (PFL), has an impact on its participants. The study follows a longitudinal design, which focuses on input factors, processes, and outcomes. Its core component consists of testing for teaching-related analysis components using a video task [Krammer, K., Ratzka, N., Klieme, E., Lipowsky, F., Pauli, C., & Reusser, K. : Learning with classroom videos: Conception and first results of an online teacher-training program. Zentralblatt für Didaktik der Mathematik, 38(2006)5, p. 422-432; ME 2009c.00079] conducted before and after the course. Based on an instructional video sequence on the topic of geometry, the study assesses the extent to which participants of the PFL mathematics course differ from those of other PFL courses.

Classification: B50 C79 D49

Keywords: teacher professional development; action research; video analysis; competence in analyzing; teacher interest; learning strategies; mathematics teachers; teacher education; teacher activities; self-directed motivation; subject content knowledge; pedagogical content knowledge; classroom observation
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