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**The influences of three interventions on prospective elementary teachers' beliefs about the knowledge base needed for teaching mathematics.**

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Summary: To meet the challenge to reform mathematics education, effective opportunities to learn are needed to promote prospective elementary school teachers' development of the knowledge base that supports teaching, for mathematical proficiency. This article describes three professional development interventions and their influence on prospective teachers' beliefs about mathematics, how children learn mathematics, and mathematics teaching. The three interventions consisted of problem-solving journals, structured interviews, and peer teaching that were integrated in a PreK-6 mathematics methods course. Results of precourse and postcourse survey data are included that measured 24 prospective teachers' beliefs about the knowledge base needed to teach elementary school mathematics. Data indicated that using these interventions and other course experiences facilitated change in the prospective teachers' beliefs, with a shift toward reform-oriented mathematics education perspectives. (ERIC)

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