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Preservice and inservice teachers' knowledge, beliefs, and instructional planning in primary school mathematics.

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Summary: We studied relationships between mathematical knowledge, beliefs about teaching and learning, and instructional planning. We contrasted beliefs, mathematical knowledge, and skills of preservice teachers ($n = 47$) with those of inservice teachers ($n = 31$) at the primary school level. For both groups, participants were generally more constructivist than traditional in beliefs, and showed evidence of low conceptual knowledge in mathematics. Multiple regression analyses indicated different relationships between conceptual knowledge and constructivist beliefs for inservice versus preservice teachers. Conceptual knowledge played a strong role in instructional planning in mathematics. Implications for future research and teacher education are discussed based on these findings.

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