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Pre-service teachers' mathematics content knowledge: implications for how mathematics is taught in higher education.

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Summary: This investigation explored pre-service teachers' mathematics content knowledge (MCK) and beliefs associated with mathematics education practices. An Exploratory Factor Analysis, conducted on a beliefs and attitudes questionnaire, produced three common attitude factors associated with (1) inquiry-based teaching; (2) how mathematics knowledge is acquired; and (3) the applicability of mathematics. These factors were used in subsequent multivariate analyses to determine whether teachers' mathematics competence influenced their personal mathematics viewpoints and perspectives. There was no difference between those students who had studied advanced and standard mathematics at school on the three belief and attitude measures, despite distinct differences in their MCK.

Classification: C49 D39 C39

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