

## ATTITUDES AND MINDSETS OF PRESERVICE TEACHERS IN MATHEMATICS EDUCATION

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### Abstract

This research study focused on understanding the impact that preservice teachers' attitudes and mindsets had on their approach to learning mathematics and how this influenced their potential as mathematics teachers. Students entering primary teacher education courses do so with a wide variety of attitudes towards mathematics and beliefs about people's potential to learn mathematics. Based on initial survey results collected during a pre-study phase, clusters were formed from different combinations of attitude and mindset. These clusters then served as case studies for further investigation, which sought to understand more deeply their views of learning and teaching mathematics, and their responses to student-centred learning. Qualitative research data was gathered via interviews and questionnaires. The findings suggested that both attitude and mindset intertwined in a complex manner to influence preservice teachers' views of learning and teaching mathematics, and that these views are related to their past experiences as learners. The study also found that many participants felt the student-centred experiences were a meaningful approach to engaging learners, but it was clear that students with fixed mindsets were more reluctant to accept a student-centred approach to learning and teaching mathematics. By comparison, students with a growth mindset were more reflective and open to student-centred approaches, such as developing student autonomy and recognizing the teacher as facilitator.

**Keywords:** Mathematics Education, Attitudes, Mind-sets.

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