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Non-traditional preservice teachers and their mathematics efficacy beliefs.

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Summary: In Florida, recent legislative changes have granted community colleges the ability to offer baccalaureate degrees in education, frequently to non-traditional students. Based on information obtained from the literature covering preservice teachers' math knowledge, teachers' efficacy beliefs about math, and high-stakes mathematics testing, a study examined a population of preservice teachers in a new Florida teacher preparation program. The research investigated relationships surrounding non-traditional preservice teachers' characteristics such as: ages, high-stakes math failures, lower division mathematics history, and math methods course performance, in relation to their efficacy beliefs about mathematics. Results revealed that preservice teachers' ages, lower division mathematics history, and math methods course performance, did have a significant relationship with their math efficacy beliefs, as measured by the Mathematics Teaching Efficacy Beliefs Instrument (MTEBI); the variable of high-stakes math failures did not. Additionally, a multiple regression model including the aforementioned variables did predict preservice teachers' MTEBI scores, but did not generalize to the greater population. The findings from this study can assist new teacher preparation programs in isolating variables that identify preservice teachers who are at risk for poor mathematical attitudes; can posit avenues for fostering positive math beliefs in preservice teachers; and can recommend further research in this area.

Classification: B50 C79

Keywords: preservice teachers; methods courses; teacher education curriculum; student teacher attitudes; program effectiveness; higher education; community colleges; individual characteristics; age; high stakes tests; self efficacy; research; federal legislation

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