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Toward an understanding of graduate preservice elementary teachers as adult learners of mathematics.

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Summary: Career-switchers who are returning to university for training as future elementary school teachers join an important and increasing group of adult learners of mathematics. These graduate preservice elementary teachers often place a high value on learning mathematics because of its prominent role in their prospective careers, but their learning often requires overcoming histories of personal struggles with mathematics. This inquiry used a mixed methods designed and focused on ten participants' perceptions of their experiences as learners of mathematics, anxiety regarding mathematics, and graduate mathematics coursework. All of the participants left professional careers to join a full-time graduate teacher preparation program in New York City. Bridging research from adult education and teacher education, we analysed interview transcripts, mathematics anxiety measures, and survey data using mixed methods both qualitative and quantitative research approaches. The findings show that, starting in adolescence, and continuing into adulthood, participants described negative experiences with exam performance, tracking, and instruction during formal school mathematics. Participants perceived these struggles as contributing to patterns of avoiding mathematics coursework and experiencing moderate-to-high levels of test mathematics anxiety. In spite of, or perhaps partly because of, their personal struggles with mathematics, the participants described urgently wanting additional high-quality mathematics preparation focused on upper-elementary content, manipulative-based pedagogy, and current elementary mathematics curricula.

Classification: B50 C29

Keywords: preservice elementary teachers; graduate education; nontraditional teacher preparation programs; educational research; attitudes