

## Exploring Persistence and Attitude Changes in an Implementation of Mathematical Literacy

**Martha B. Makowski**, The University of Alabama

Despite over half of all surveyed two-year colleges having Mathematical Literacy, a developmental mathematics curriculum pathway that uses real-world problem solving and group work, comparatively little is known about the impact of these classes on students' attitudes towards mathematics. Using data from a pre- and postsurvey, this study examines the demographics of the students who persisted in a Mathematical Literacy course at a single community college. For students who persisted, patterns in how and whose attitudes changed are also examined. Although patterns in who persisted did not differ greatly from other developmental mathematics implementations, students did experience positive growth in enjoyment of mathematics. Instructors seem to have the potential to impact how students' attitudes change. A vignette from a single observed Mathematical Literacy classroom is presented to illustrate some of the instructional opportunities for attitudes to change. The results presented suggest Mathematical Literacy has the potential to help two-year college faculty achieve the vision outlined in AMATYC's *IMPACT: Improving mathematical prowess and college teaching* (2018).



**Martha B. Makowski** is an assistant professor of mathematics at The University of Alabama. Her research interests include the ways in which the curriculum and instruction of mathematics classes restrict students' ability to achieve their career goals, particularly at the developmental level. She has used both quantitative and qualitative methods to explore these questions.