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*A Century of Leadership in Mathematics and Its Teaching*

**Beliefs and Perceptions of Learners and Teachers in Mathematics Education**

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# PREFACE

What beliefs and perceptions about mathematics do individuals hold, and how do they affect their learning and teaching? The Fall 2023 edition of the *Journal of Mathematics Education at Teachers College* presents three research papers that delve into these questions in distinct contexts. The two following short reports carry on the theme through to teaching arithmetic, one from a historical perspective and the other from a classroom teacher's perspective.

Parker-Holliman and Maina open this issue by investigating the lived experiences of Black girls in accessing advanced secondary mathematics courses while in middle school. Through qualitative methods, the research highlights the impact of their perceptions of societal messaging and identifies protective factors that empower them against the odds.

Transitioning toward pre-service teachers' beliefs, Phelps-Gregory et al. explore the definitions of good teaching and learning. This qualitative case study reveals the diverse beliefs held by elementary pre-service teachers, shedding light on the complexity of their beliefs while providing insights into how their beliefs relate to their self-efficacy and teacher efficacy.

Tsami et al. provide a quantitative report from Greece on gender-based differences in student perceptions around the use of educational technology. It examines college students' perceptions regarding their comprehension and performance in learning probability theory.

Kaori Yamamoto

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*Guest Editors*