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A Century of Leadership in Mathematics and Its Teaching

Standardization in Mathematics Education

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PREFACE

The spring 2018 issue of the *Journal of Mathematics Education at Teachers College* features three articles that each recommend “standardization” in mathematics education. That is, each article considers some aspect of mathematics education—international comparative tests, cultural connotations, and doctoral programs—and discusses issues about, and the move toward, standardization. This issue as a whole seeks to challenge and broaden the perspectives of mathematics educators.

Kosko and Singh studied NAEP assessment items; they sought to determine whether the items were valid tools for assessing elementary-level students’ procedural and conceptual understanding of multiplication. Combining their Multiplicative Reasoning Assessment with items from the 2011 and 2013 NAEP, Kosko and Singh demonstrate how several NAEP items emphasize procedural accuracy over conceptual understanding. Their findings pose a challenge for NAEP item designers and NAEP results interpreters, reminding us of the importance of the NAEP for structuring mathematics education policies in the United States.

Barba investigated the cultural connotations of the word “mathematician” and the specific influence of popular culture on students’ mathematical identities. She highlights the types of mental schemas associated with those who study mathematics and suggests ways to demystify the role or image of the mathematician. Pulling together a selection of movies, texts, and hashtags, Barba explores an important stereotype, and issues an opposing call-to-arms.

Reys reflects on the current state of mathematics education doctoral programs, exploring the benefits that a widespread accreditation system may bring. He reviews the history of mathematics education doctoral programs in the states and proposes topics for accreditation review consideration. Reys argues that seeking accreditation can be constructive and empowering for any institution and offers a new means of strengthening mathematics education doctoral programs.

Together these articles reveal critical areas in which the mathematics education community can learn and grow. Mathematics students and educators will benefit by challenging what is commonly accepted. Young or old, pupil or instructor, “mathematician” or otherwise, self-reflection will be key in fortifying the future of our field.

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Guest Editors