A Note from the Editors

Dear TME readers,

On behalf of the editorial staff and the Mathematics Education Student Association at The University of Georgia, I am happy to share with you the first issue of the 21st volume of The Mathematics Educator. As we embark on the second decade of TME, this issue gives our readers both a view into some up-and-coming trends in mathematics education and harkens back to the roots of our field. In lieu of a traditional editorial, as our opening article, we present the first English-language publication of an interview of George Pólya, captured by his former student Jeremy Kilpatrick. In the interview, Kilpatrick delves into the ideas of one of our field’s early prominent leaders, introducing us to Pólya's ideas about the nature of mathematical thinking and ability. The remaining articles in this issue highlight current trends in preservice mathematics teacher education: using technology to enrich preservice teachers’ mathematical learning, developing curricula for building preservice teacher understanding of statistics, and exploring what preservice secondary teachers value in their undergraduate mathematics courses.

More specifically, José N. Contreras offers a description of how he used Geometer’s Sketchpad (GSP) to help preservice teachers discover geometric theorems, develop proofs for those theorems, and deepen conceptual understanding by exploring connections between theorems. He explains the different functions GSP served in facilitating his students’ understanding. Hollylynne and Todd Lee provide an inside view of how they used research to inform curricular revisions in their article, “Enhancing Prospective Teachers’ Coordination of Center and Spread.” They provide an excellent model of how to analyze and refine the development of mathematical themes in curricular materials. Finally, Lee Fothergill adds to the on-going debates about what mathematics teachers need to know. He examines perceptions about the content of calculus courses for preservice teachers among both student teachers and mathematics department faculty, and he finds some interesting areas of agreement.

Publishing TME requires the help of many people: authors, editors, and faculty advisors. But the backbone of our journal is no doubt our reviewers who provide the first critical feedback on submitted manuscripts and often receive far more requests for reviews than acknowledgement of their work. At the conclusion of this issue, Katy and I offer the tireless reviewers for this issue a long-overdue thanks. We hope that you enjoy this issue and share it with your colleagues.

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About the cover: Graph by Kylie Wagner, rendered in Illustrator by Jeff Sawhill
A predictive model can be fitted to the random variable $y$ by minimizing the vertical distance between the fitted line and observed $y$-values. We can calculate the probability of $y$ occurring within a certain distance of the predicted $y$-values by using a series of normal curves; where the mean of the curve is equal to the predicted $y$-values. This three-dimensional graph of the error distribution of a regression line more accurately captures this probability function than the two-dimensional diagram (shown in the upper left corner of cover).

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