

Editorial

Mathematics Teacher Educator: Looking Back and Looking Forward

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In this editorial, I look back at what the *Mathematics Teacher Educator* journal has accomplished during its short existence. In particular, I examine how past editors and panelists have worked to clearly establish the unique identity of the journal. This clearly articulated vision has assisted in attracting well-aligned, high-quality manuscript submissions. It also provides educative scaffolds for authors, reviewers, and editors that have led to the publication of articles relevant to mathematics teacher educators. I then look forward to consider how we can harness the power of the internet to enrich readers' experiences with the journal. Many ways exist for an online journal to capitalize on technology to communicate, interact, and connect.

When I submitted my application to serve as the next editor of the *Mathematics Teacher Educator* journal, a strong commitment to carry out the current, well-articulated vision communicated by editors and panels who came before me was central in my response. But also in my vision were thoughts about how to harness the power of the internet that is unique to an online journal. For example, imagine you receive an email message that announces the arrival of the latest issue of *Mathematics Teacher Educator* (MTE). You click on the link and find articles that invite you, the reader, to interact with the content in ways that enhance your experience. What does that experience look like, feel like, sound like? In this editorial, I will discuss how we are building on the past successes of the journal and will consider how we can leverage three key features of its online platform: (a) communication, (b) interaction, and (c) connection.

Looking Back

In the March 2019 editorial, Sandra Crespo and Kristen Bieda highlighted three successes as editors of the

journal: (a) publication quality and diversity, (b) educative reviews and reviewer recognition, and (c) the impact of MTE. They also indicated that there was a need to continue to diversify the types of manuscripts and authors in MTE and to continue to improve the online features of the journal. I concur with and would like to build on their statement of successes and provide a vision for ways we might consider how to diversify manuscript types and authors and capitalize on the online presence of the journal.

Publication Quality and Diversity

One of the most influential contributions of the past editors was the MTE Writing Tool, which was unveiled in the March 2017 editorial and recently updated on the MTE website (<https://www.nctm.org/publications/write-review-referee/journals/Write-for-Mathematics-Teacher-Educator/>). The writing tool has become important to us for communicating with authors and readers the types of manuscripts the journal publishes. We use this tool in all aspects of our work. When talking with authors, we begin by asking, "What is the shared problem of practice your manuscript addresses?" When reading manuscripts, we consider, "What new knowledge or practices does this manuscript offer to mathematics teacher educators?" When we synthesize recommendations from reviewers, we organize them around the manuscript criteria, which are well-articulated in the writing tool. Letters from the editors are organized around the writing tool to support authors in learning about criteria specific to MTE so that the next manuscript is stronger and a better fit for the journal. As editors, we have noticed more manuscripts are submitted that align with the writing tool and criteria, which suggests that the work of our predecessors in educating authors, reviewers, and readers has been successful.

A Revised Writing Tool. Although the existing writing tool does an excellent job of describing how to craft an article around a particular innovation, tool, or method, not all articles have this focus. Some articles are more theoretical in nature but still informative to the practices of mathematics teacher educators. We are pleased to announce a revised writing tool. On the website, you will see that we have modified the existing tool to communicate to authors the expectations of manuscripts of this type. The new tool still communicates the importance of addressing a shared problem of practice, situating it within the literature and making explicit the new contribution. If the manuscript is theoretical or philosophical in nature, then it should

- explain the impact of the issue of practice in mathematics teacher education;
- describe the background of the problem/issue and/or describes the policy context that is relevant; and
- go beyond simply describing the issue to illuminating the trade-offs that would result from alternative solutions to the issue.

One article in this issue, “Complex and Contradictory Conversations: Prospective Teachers Interrogating Dominant Narratives Within Mathematics Education Discourse,” authored by Lynette Guzmán, is a nice example. Guzmán begins by articulating the shared problem of practice, thinking about how prospective teachers and teacher educators might reframe contradictory issues (e.g., traditional/reform teaching, identity-neutral/attention to gender inequities) as complex and conflicting. She describes the impact of this issue on practice and grounds it in existing literature and theories. Working group meetings that Guzmán held with four prospective teachers, which involved collectively analyzing their conversations and unpacking and exposing their beliefs, were highlighted in the description of the idea mapping task and analysis of the discussions related to considering whether “anyone can be successful with mathematics,” and “who is a math person?” Trade-offs for examining the complex and contradictory ideas are offered and suggestions provided for mathematics teacher educators interested in addressing these challenging ideas in their own classrooms. Although the author’s manuscript did not fit nicely into the existing writing tool, we think it provides an excellent example of a conceptual article that contributes new knowledge to and offers specific suggestions for mathematics teacher educators. We hope others will consider writing manuscripts for *MTE* using the new writing tool. We believe the new writing tool can address the need to diversify the types of articles in the journal as suggested by past editors.

Educative Reviews and Reviewer Recognition

Another success highlighted in the March 2019 editorial was educative reviews and reviewer recognition. In the March 2016 editorial, “Is it Educative? The Importance of Reviewer’s Feedback,” Crespo explained the difference between evaluative and educative feedback and provided multiple examples to illustrate these important differences. The reviewers of *MTE* do an excellent job of providing educative feedback. We are grateful for the time and effort reviewers spend to carefully read manuscripts and provide authors with guidance to strengthen the contributions they can make to mathematics teacher

educators. The thoughtful feedback assists the editors’ work and decisions. Co-editor Valerie Faulkner and I have been determined in expanding our pool of experienced reviewers by purposefully pairing new reviewers with experienced ones. We know excellent reviewers often become authors of manuscripts and this is one way we can work to diversify the authors of articles in the journal. We are also considering ways we can increase our pool of reviewers and educate them in understanding the unique criteria we consider in *MTE* manuscripts by providing online resources for reviewers, which we hope to publish in the coming year.

Journal Impact

Some of the most rewarding comments I hear from colleagues are such statements as “I used the activity from *MTE* with my prospective teachers” or “I listened to the *MTE* podcast, and I plan to read the article and use that activity with my students.” The impact of *MTE* goes beyond citations and downloads. Rather, articles in the journal have actively contributed to building a knowledge base focused on the preparation of mathematics teachers and have become a resource for mathematics teacher educators to turn to when seeking ideas, tools, or activities they can use in their classrooms. Although citations and downloads are fairly easy to document and assess, measuring the impact an article has when used by other mathematics teacher educators is more difficult. But perhaps there are ways to harness the power of the internet to gain insights into the impact of *MTE*. Perhaps there is a way for readers to leave comments to communicate, interact, and connect with others about how they are using ideas shared in *MTE* articles.

Looking Forward

As we look to the future, we want to consider how *MTE* can use its online presence to provide opportunities to communicate, interact, and connect with mathematics teacher educators.

Communication

For the most part, communication with journals is text-based and unidirectional. To share ideas in the articles in a different way, we recently released a podcast to accompany the journal. The podcast allows readers to listen to interviews with authors of journal articles. With support from NCTM and AMTE, and under the leadership of Eva Thanheiser, we have conducted interviews with authors of articles published in the September 2018 and March 2019 issues. These interviews use the *MTE* Writing Tool

as their basic structure and provide readers with another way to learn what the authors are sharing with mathematics teacher educators in their article. We know how difficult it is to find time to read, and we believe a podcast is another way we can communicate with mathematics teacher educators. Each episode is about 25 minutes, and within that time a listener can learn more about what is included in the article and how it may relate to their own practice. We currently have over 2,000 downloads and are looking forward to growing that number as new podcasts are recorded and released. However, like articles, podcasts are also unidirectional. We would like to explore ways for readers to communicate with authors, editors, panel members, and one another. Perhaps ways exist for readers to provide comments about how they used a particular article or to describe modifications they made to adapt the innovation to use in their own context. We are excited to explore the many possibilities.

Interaction

Although communication is one form of interaction, another form includes mathematical action tools and other media. *MTE* has the opportunity to consider different ways readers can enhance their experience by interacting with different online features. These features may include links to interactive, dynamic sketches or mathematics tools with which users can interact. For example, as shown in Figure 1a, the September 2013 issue included a downloadable Sketchpad file with tasks that challenged preservice elementary teachers to construct a picture from a given set of quadrilaterals (Millsaps, 2013). The March 2017 issue featured an article, “Eliciting and Analyzing Preservice Teachers’ Mathematical Noticing”

(Amador, Estapa, de Araujo, Kosko, & Weston, 2017), featuring a link to a GoAnimate video that others could use to engage preservice elementary teachers in noticing mathematical thinking.

A logistical challenge of incorporating interactive features is assuring the technology can be used beyond the initial publication of the article. Also, when articles include links to external sites, there is always a concern that it may become inactive. Finding ways to host interactive components within the structure of the journal can also assure links remain active as websites are updated. Other interactive features include simulations of practice that include the use of LessonSketch, videos that can be used to launch a task for preservice teachers, and data sets that can be explored. I am sure other possibilities will become available as technology is ever changing and evolving.

Connection

The final important feature of the internet that the journal has the potential to harness is the ability to cross boundaries of institutions, states, and nations to connect with people who have shared interests. The current *MTE* Editorial Board and Editors are considering ways we can open up spaces for mathematics teacher educators to share resources and connect with others about shared interests. We are still in the early stages of envisioning what this might look like, and I look forward to how this may evolve.

The *Mathematics Teacher Educator* journal has come a long way in a short period of time. Previous editors and panels have worked hard to articulate the vision of the

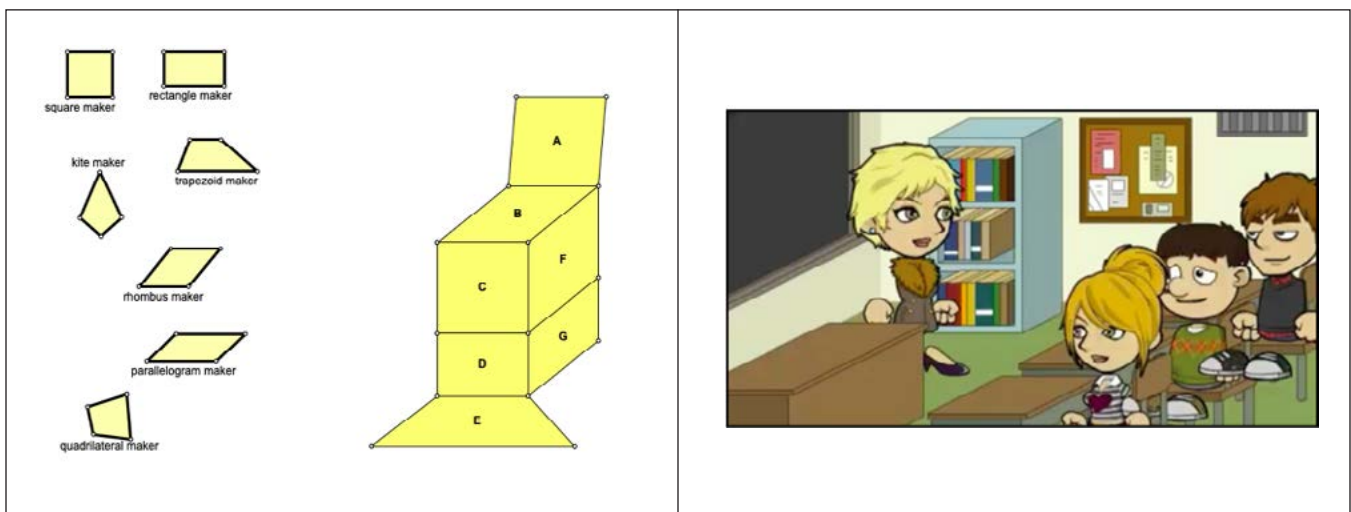


Figure 1. A downloadable Sketchpad file (a) (Millsaps, 2013) and an image from a GoAnimate video (b) (Amador, Estapa, de Araujo, Kosko, & Weston, 2017). The GoAnimate video is available at <https://www.youtube.com/watch?v=Q7hu5Loqks0&feature=youtu.be>

journal and establish its identity in a field crowded with many journals where authors may choose to publish their work. I look forward to carrying out the original vision and mission of the journal while also considering ways we can broaden the scope and reach of the journal and also take advantage of its online presence.

References

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