

MI-AMTE NEWSLETTER

Dr. Shari McCarty and Dr. Jill Mortimer, Newsletter Editors



A MESSAGE FROM THE MI-AMTE PRESIDENT DR. KRISTEN BIEDA

This academic year I've been struck by what a pivotal moment this is for mathematics education in Michigan and beyond. In some ways, it feels more like "normal" than it has since the beginning of the pandemic; schools have had their first full academic year without the onslaught of waves of illness from variants and the toll it can take on students' learning. While most teachers I talk with still feel like gaps persist as we get more distance from the pandemic, largely more social than academic, what feels more problematic is that we are emerging from the COVID crisis with an awareness that the measures that were taken to keep students academically engaged during the pandemic have left us with a reduced workforce of teachers. Those who remain may not feel they have the bandwidth or support to engage in continuous improvement.

What makes this such a pivotal moment for mathematics education in Michigan is that with crisis comes opportunity, and we may be in a moment where we can make great leaps forward with the opportunity we have been given. With the adoption of the new Michigan State Standards for Teacher Preparation for Mathematics for all three grade bands of certification, we are collectively in a moment to create new programs and courses that better prepare Michigan teachers to teach mathematics in more equitable ways. Research and development in the field of mathematics teacher education over the past two decades has provided key insights for making these changes; now a revised set of standards helps make this a reality across our teacher preparation programs.

I am particularly interested in how artificial intelligence may shape the work that mathematics teachers, and those in mathematics teacher education, are able to do in the coming years. I am intrigued how the potential of artificial intelligence is coming into sharper focus now as the challenges we are facing in education are looming large – particularly the teacher shortage.

The MI-AMTE Board of Directors has developed four ambitious goals for the year:

1. **Develop and expand both synchronous and asynchronous membership engagement opportunities.**
2. **Increase active membership**
3. **Support professional and career development needs of MI-AMTE members**
4. **Develop and enhance partnerships across teacher education institutions in Michigan**

Now more than ever it is critical that we build a robust membership so that MI-AMTE can be an organization that supports its members in their critical work as mathematics teacher educators and is a prominent voice and advocate for mathematics education in Michigan. We are excited about the ways we will be enhancing member benefits this year, and we have recently made investments in our website infrastructure to allow for cataloguing of our professional development resources for member access throughout the year. I welcome your feedback on the ways that MI-AMTE can improve and grow during this year. I'd also welcome any thoughts you have about what you see as critical needs you have to support your work as a mathematics teacher educator, so that we can be thoughtful and strategic about how our professional development offerings can serve the needs of our membership. You can reach me anytime at kbieda@msu.edu.



A chat with Brette Garner:

We were able to catch-up with and interview Brette Garner recently. She really is a breath of fresh air. It was so nice to speak to her again following our Conversation Among Colleagues Conference in February 2023 at Grand Valley State University. We hope this chat reignites the ideas and motivations you had after listening to her keynote speech, and put your plans into action!

What would you like to remind us about from your talk at the conference?

One of the big things I would like folks to take away is to push back on the language of “best practices”. I think teachers are often looking for the right way to do this or the right way to teach or what would be best for “my” students. There are not a whole lot of universal best practices. We need to ask the best for whom? In what ways? And in what context?

What is one of your favorite teacher preparation class experiences?

One of my favorite things is from Jen Munson (Northwestern University), which is called “fascinating student thinking.” We ask future teachers to bring in something weird or interesting that a student did. Maybe it was something unexpected, a novel way that a student approached something, an error or misconception the teacher wasn’t expecting, or anything. Then, in our methods course, we discuss why it is interesting or neat, and we think about it together. What is great about it is that we get to talk about many different topics, but we also get to talk about approaching student thinking with curiosity instead of looking for right and wrong answers. A lot of incorrect answers can have a lot of really correct thinking. There may be brilliant ideas behind it. Being able to look beyond what the student does NOT know and look at what the student does know and what are they thinking about correctly. This works on building on curiosity and student assets. This activity helps future teachers appreciate the fun and exciting things kids are doing.

Describe ambitious mathematics teacher learning (Ambitious and equitable teaching)?

I think of the ambitious part as learning mathematics that supports conceptual understanding alongside of procedural knowledge. And that allows students to engage in the disciplinary practices of math. So in the Common Core that would be in the Practice Standards. It allows all students to apply mathematics to their lives in really interesting ways. I think of the equity piece in terms of who gets access to the mathematics in the classroom. Most people think ambitious teaching should be equitable, but we all know that the classroom engaging in really rich Mathematical practices are reserved for those students in the honors-track or AP classes. “And equity piece” to really reinforce all students should be able to engage in mathematics in interesting and meaningful ways. We should be valuing the conversations and ideas of all students in the classroom, especially the students with identities who in the past have been marginalized and minoritized or pushed out of math.

Brette’s closing advice for new teachers:

Try not to allow yourself to think you are either a good teacher or a bad teacher. This binary thinking for especially for high-achieving new teachers, when something doesn’t go as expected. There will always be trade-offs in teaching. Try to make incremental changes, and pick one or two things to work on consistently. Make adjustments a little at a time, perhaps one adjustment per unit, and each year. As teachers play the long game, you will not have a perfect class this year or next year just find peace in continuing to grow and improve.

Benefits of Membership

Besides the individual benefits of membership outlined below, joining MI-AMTE contributes to the role we can play to the benefit of the profession and society. As a growing national organization, AMTE recognizes the value of affiliates in tapping the resources and addressing the needs at the local level.



Leadership Opportunities

Join a committee, become an officer, start an activity

Network of Professionals

Build relationships, receive support, expand horizons

Professional Development

Attend Zoom coffee chats, webinars, and workshops

Special Interest Groups

Join our Stats Ed & Teaching Math Content (TeMaC) SIGs

Conversations Among Colleagues

Our annual CAC conference

Advocacy in Michigan

Influence policy through collective voice & action

Member Spotlight

Alicia C. Gonzales is a postdoctoral scholar with Dr. John Gruver on an NSF grant developing and investigating dialogic mathematics videos. She received her Ph.D. in Teacher Education and Curriculum Studies (Mathematics education) from the University of Massachusetts Amherst. Her research interests broadly encompass equity in math education. These include mathematical empowerment, student perceptions of instruction, and the use of technological tools. Her favorite work is the work she does with others. As an early career scholar beginning to build her network, she keeps in weekly contact with her friends and colleagues through weekly and monthly "scholarship" Zoom groups, where they share ideas, writing, and teaching ideas. Her colleagues outside the STEM education realm (english, higher education, art education, international education, etc...) are great resources because they help us in STEM education think about how we are communicating our ideas with others. If you don't have a writing group or a scholarship group you are a part of, consider starting one yourself! Even if it means taking a lunch walk with someone outside of your department once a week, all it takes is you showing up to build a community no matter how small. In her other life, and usually mathematically and educationally relevant, she enjoys ceramics, reading, baking, and yoga.



UPCOMING CONFERENCES

2024 CONVERSATIONS AMONG COLLEAGUES CONFERENCE

CAC 2024 will be held at UM-Dearborn on March 16, 2024. Check back soon for the conference theme and details about submitting proposals. We look forward to seeing you there!



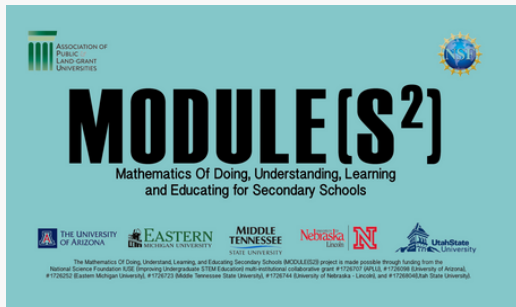
Twenty-Eighth Annual Conference of the Association of Mathematics Teacher Educators

2024 AMTE Annual Conference, Orlando, FL, February 8-10, 2024

Rosen Centre Hotel



MORE NEWS



The NSF-funded MODULE(S²) project has published free curriculum materials that develop prospective teachers' mathematical knowledge for teaching secondary mathematics. We offer curriculum materials for use in university courses in four content areas, each meant for a 3-credit-hour semester-long class:

- Algebra from an Advanced Perspective (including functions, relations, and fields)
- College Geometry
- Mathematical Modeling
- Introductory Statistics

Visit our website, www.modules2.com, to learn more about our project and request free access to our materials.

Mini-Grant Awardees

Michael Brown, Teaching Specialist, Michigan State University

With the support of the MI-AMTE mini-grant, I am developing new curricular materials for a newly created course at Michigan State University. The new course content is being designed to meet MI teacher prep standards that are not satisfied by other course offerings. The goal of this project is to enhance the mathematical knowledge and pedagogical skills of future mathematics teachers, while satisfying the MI teacher preparation standards.

Sheila Orr, Doctoral Student, Michigan State University

In collaboration with three experienced mentor teachers, who were identified based on their commitment to racial justice, this project illuminates the ways secondary math mentor teachers work for racial justice in their mentoring practices. In addition to the creation of a framework which will support the ways the field thinks about mentoring practices, we have started creation of case vignettes to be shared with other mentor teachers. The goal with these cases is to provide tangible examples about the ways mentor teachers have thought about mentoring for racial justice.

Dr. Joy Oslund and Colleagues, Grand Valley State University

The MI-AMTE mini-grant funded materials for a three-day workshop on using Complex Instruction, a set of principles and practices for using small group work to promote equitable participation. Participants learned about the role of status in creating unequal participation and how to address status issues through lesson design, instructional practices, and assessment. Each participant developed a task to use in a math content and/or math methods classroom.

Do you have a project you would like to publicize or materials you would like to share with MI-AMTE members? Do you have a suggestion for our MI-AMTE Member Spotlight? Please contact Jill Mortimer at jmortimer@albion.edu.

NEW EPISODE OF TEACHING MATH TEACHING PODCAST FEATURING OAKLAND UNIVERSITY PROFESSOR DAWN WOODS!



[HTTPS://WWW.TEACHINGMATHTEACHINGPODCAST.COM/83](https://www.teachingmathteachingpodcast.com/83)

Teaching Math Teaching Podcast

Katie Rupe and Dawn Woods: Working Alongside First Year Teachers

Abstract: Learning to teach math teachers better with Katie Rupe, Assistant Professor of Mathematics Education at Western Washington University, and Dr. Dawn Woods, Assistant Professor of Elementary Mathematics Education at Oakland University, as they share their experiences and advice on being mathematics teacher educators, their work supporting first year teachers, and their experience being awarded the first ever Mathematics Education Trust Early Career Research Grant, which is cosponsored by Eugene P. & Clara M. Smith Mathematics Education Research Fund, the National Council of Teachers of Mathematics and AMTE.

Meet the MI-AMTE Leadership Team

The MI-AMTE Board consists of seven elected positions. See below for the current Board members.



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