Points & Angles

Newsletter of the Metropolitan Mathematics Club of Chicago Volume LI No. 3 Dec. 2021

What I Didn't Learn About Teaching During a Pandemic

December Speaker Mary Wiltjer



Date/Time: Friday, January 21, at 7:00 p.m.

Location: Zoom online platform

Registration: Register online at mmcchicago.org

Cost: No charge; donations welcome via Zelle at zelle4mmc@gmail.com *Special Programming Note:* The Board of Directors has made the decision to remain virtual for the January dinner meeting. We are hopeful to be back in person for the March meeting and will inform you if there is any change. Thank you for your continued patience and support.

I can't think of a better person to kick off our first meeting of 2022 than longtime member of MMC, Mary Wiltjer, who will give a talk, entitled "What I Didn't Learn about Teaching Math During the Pandemic." The title of this talk may be as elusive as figuring out how to be a great math teacher and though I tried very hard to get more information out of Mary, she proved to be as mysterious as the title. However, if you know Mary, you know she is passionate and reflective about teaching students and improving math education. She is dedicated to helping teachers through her service to MMC. Mary ran the Conference of Workshops for several years and has been the membership coordinator for over 20 years. She has served on the Board of Directors and as President. She has coordinated and taught summer workshops for MMC and organized our webinar on Assessment in Remote/Hybrid Learning last October. She has spoken numerous times at NCTM and ICTM, and she wrote for UCSMP on both the Algebra and Precalculus and Discrete math textbooks.

Mary is in her 29th year of teaching and is currently in the math department of Glenbrook South High School. In 2018, she won the T.E. Rine award from ICTM for excellence in secondary math teaching. She has been an AP reader for calculus. In her free time, she enjoys reading, attending theater productions (pre-pandemic), and spending time with her basset hounds, Libby and Walter. On a personal note, Mary has been incredibly helpful to me in my role at MMC, and I frequently tap into her wealth of knowledge on the organization's history and operations. I could not have done my job the last two years without her.

Points from the Interior by Aimee Hart

About ten years ago, I got a call from a classmate from elementary school. She and a few other people were organizing an unofficial reunion over the winter holidays and wanted to know if I could go. I attended a small Catholic school for kindergarten through 8th grade. We had about 30 people in our graduating class. Like many people, I did not remember my middle school years fondly. And like many people, I never felt like I had belonged there. I decided to attend the reunion, and we had about half of our class show up. I am not exaggerating when I say it was one of the most fun evenings I have ever had. I smiled and laughed so much that my cheeks hurt at the end of the night. We reminisced about our grade school days, looked at pictures someone had brought from our 8th grade trip to Springfield, and caught up on each other's lives. The thing that stands out most from the evening was when someone asked who everyone thought the popular or cool kids were in school, and no one thought they were one of them. There were people in that room that I definitely would have labeled as a "cool" kid, and they didn't feel like they had belonged either.

I thought about our reunion discussion this evening as I listened to Howie Hua's webinar on Belonging in the Math Classroom. I applaud the effort by Howie and many others to change the culture of the math classroom. There has been a shift in mindset in math education to allow greater access, encourage mistakes and offer problems that have an entry point for every student. Teachers are doing more to make students feel like they belong in math. We can all identify the students (or adults) who think they aren't math people. Sitting through parent-teacher conferences the last two days, I had several parents tell me outright they weren't math people, and some share very painful stories of a teacher who told them they were bad at math. But I think sometimes we underestimate just how many people have felt like they don't belong. Even those of us who were "successful" at math and had great experiences with our math teachers have had many times when we felt like we didn't belong. It is important that we continue to work on a culture of belonging within our institutions, including MMC. It will take time to change the culture in the math classroom and the greater math world, but I am encouraged by the focus on making that change. For those of you who don't always feel like you belong, MMC welcomes you. For those of you who have found your footing in the math community, please extend your hand to someone who hasn't and invite them to attend an MMC dinner meeting or submit a proposal to speak at an MMC workshop. They will find a community ready to support and include them, and I look forward to the laughter and learning we will share.

Special Programming Note:

You may have noticed a change in our schedule of speakers for the April talk. Due to personal reasons, Dr. Scott Powers is unable to travel to Chicago in April. We are excited that P.J. Karafiol agreed to step in and speak on "What can math teachers contribute to the conversation about equitable grading?" We hope to welcome Dr. Powers to a dinner meeting in the future.

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Belonging in the Math Classroom By Janice Krouse

Howie Hua is a math instructor at Fresno State who teaches math to future elementary school teachers. He is passionate about finding ways to humanize the math classroom, listening to how students think about math and building mathematical confidence in students.

So why are we talking about belonging in the math classroom? It is part of our job to create a safe space for all students. It was worth taking a moment to reflect on those conditions that make us feel like we belong. After surveying



participants' responses in the chat, Howie shared the responses of his students. Those conditions included a sense of welcoming, acceptance, humility, considerate behaviors, good communication, diverse perspectives, and of course, kindness. We need to aim to create an environment in which students will be their central, authentic selves. Too many times, students feel the need to bring their "calculating" self to math class, ready for fight or flight, rather than embracing the math classroom as who they are at the core.

So how can we encourage students to bring their central and authentic selves to the classroom? Howie shared some of his ideas and projects that are aimed at building personal relationships in the classroom. He emphasized the importance of greeting students by their names, talking to individuals as much as possible, being open about our own weaknesses and/or sharing something that we are still learning. One of his favorite projects is students' creations of autobiographies created as a Google slide deck prior to the first class meeting. Another activity he shared is one he calls "20 words/phrases," in which students list twenty phrases that describe their previous math class. Then he suggests that they swap some of the phrases for something they might prefer more. This helps him to support his students, find their strengths, and give them a voice. He uses their ideas to show his students how he learns from them and reminded us that the purpose of a math class is *not* to show how smart you are as the teacher, but rather, to bring out the mathematicians in each student.

Equally important, we should consider our reaction when we find ourselves in a situation where we don't feel like we belong. What do we do? Often, we want to leave! While it may be true that our students can't leave the classroom, they can choose to leave the math community. They fail to see themselves as a "math person," and celebrate never having to take another math class. What are you doing to interrupt that trend?

As math educators, we want to help all of our students see themselves as mathematicians. In Howie's words, the goal is not "to turn you [students] into a replica of me," but rather to "bring the best mathematician out of you." Howie fills his courses with low floor/high ceiling problems in order to invite participation and mathematical conversation. He helps each student see themselves thinking mathematically and growing mathematically.

Howie closed by sharing one of his favorite pastimes: making math memes! Fostering smiles among his mathematicians often prompts them to even make their own memes! MMC was fortunate to spend the evening with Howie and experience the warmth and positivity that he easily creates in his classroom. Howie is happy to share his ideas and does so on Twitter/TikTok: @howie_hua. Be sure to check it out!



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Metropolitan Mathematics Club Of Chicago

Affiliate of ICTM & NCTM

MMC Virtual Conference

given by teachers for teachers

Saturday, February 12, 2022 8:30 am – 12:10 pm

OPTIONAL POST-SESSION DISCUSSION

12:10 to 1:10 pm

Professional Development Hours/CPDU Credit Available

Registration Information Coming in Late December 2021 or Early January 2022

Check the MMC website (mmcchicago.org) for details!

Conference is FREE for MMC members. Non-members will get a free MMC membership with conference fee: Regular Membership (\$35), Student (\$22), First-Year Teacher (\$22), Retired (\$28)

MMC Scholarships Are Coming This Spring

We need you to help us find future mathematics teachers! Keep your eyes open for more information in January about scholarship opportunities for high school seniors who are planning to study mathematics education. We have streamlined the application process, and we want to support some deserving students. Do you know someone that you can nominate? Application materials will be available in January and will be due on March 4, 2022. The winner(s) will be announced at our May meeting.

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Upcoming Events

Fri., Jan. 21	Mary Wiltjer	What I Didn't Learn About Teaching Math During the Pandemic (via Zoom)
Sat., Feb. 12		MMC Conference of Workshops (via Zoom)
Fri., Mar. 4	Ben Orlin	Mathematical Games and Why They Matter (Fountain Blue)
Fri., Apr. 22	P.J. Karafiol	What Can Math Teachers Contribute to the Conversation About Equitable Grading? (Fountain Blue)
Fri., May 20	Zalman Usiskin & Andrew Chukerman	NCTM and a Century of Mathematics Education – A Review with Music (Fountain Blue)

Send upcoming event items to sburnett_308@yahoo.com no later than the date of the MMC dinner meeting preceding the issue in which the item should appear. All items are subject to editing.

Your membership renewal date appears in the upper right corner of the label



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