

January 2024



# Kansas Association of Teachers of Mathematics

## Bulletin

### Kansas Association of Teachers of Mathematics **MATHEMATICAL MINDSETS**

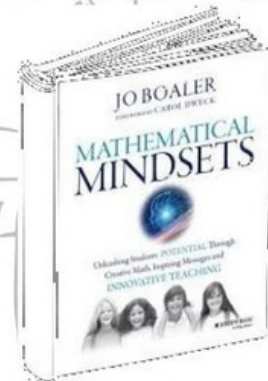
**Keynote Speaker**  
**Jo Boaler**

**MARCH 25, 2024**

**10:00 – 3:00 PM**

**SEWARD COUNTY COMMUNITY COLLEGE**

**LIBERAL, KS**



**Conference Proposals  
Due: February 5, 2024**

*Save the Date!*

For more information contact  
[danielminde@katm.org](mailto:danielminde@katm.org)



[bit.ly/katm2023proposal](https://bit.ly/katm2023proposal)

[Click here to register to attend!](#)

[Click here to submit a presentation proposal](#)



Kansas Association of Teachers  
of Mathematics



## President's Message

KATM Members,

Happy New Year! As we go into a new calendar year, it is often a great time for reflection and goal-setting. Self-care, mental and physical health, or reading a new book are all great ways to rejuvenate and take a step towards feeling restored and empowered! I recently taught a self-care for educators course where we focused on the difference between being happy and finding meaning. This is a tricky concept because often we set goals that might lead to increased happiness, but they tend to fail or we can't follow through on the high (sometimes unrealistic) expectations we set for ourselves. That's where finding meaning comes in, when we set goals that have a purpose, have not only a how and what, but a focus on the why, we are more successful at reaching our goal. The other key to success is Finding our Marigolds! If you haven't read this story, I encourage you to take a couple minutes and click this link from the Cult of Pedagogy: <https://www.cultofpedagogy.com/marigolds/>. KATM is full of marigolds who are passionate about teaching and learning math!

As you consider your new year's resolutions, have you thought about the teaching and learning of math? Maybe you want to increase the number or real-world tasks your students engage in or the type of collaborative learning opportunities you use or maybe it's refocusing on a math concept or skill that needs more attention. Connect with your fellow Marigolds at KATM - follow us on Facebook and share your new year's math teaching resolutions! We'd love to hear from you and support you in this journey!

If your new year's math teaching resolution revolves around changing your and your student's Mathematical Mindsets, then we have some exciting news to share with you!! JO BOALER is coming to KATM!! Jo Boaler, author of Mathematical Mindsets series and [youcubed.org](http://youcubed.org), is our keynote speaker for the 2024 KATM Annual Conference in Liberal, KS on March 25. We are very excited to have her share her expertise with Kansas teachers at the conference and to learn just how important Mathematical Mindsets can be to the learning process. We also look forward to continuing the learning throughout the year in a variety of ways, including our social media platforms and our Zone Coordinator events! Please see the flyer later in the Bulletin for conference registration and presenter information. While you are at the conference learning from Jo Boaler and fellow Kansas math teachers, please consider sharing your experiences and expertise!

If you are looking for even more ways to get involved and be a marigold for Kansas math teachers, consider serving on the KATM Executive Board or sharing your experiences in our annual special issue of The Journal for Kansas Math Teachers. More information for both opportunities can be found in this Bulletin and on our KATM Facebook page.

Have a wonderful start to 2024! I look forward to seeing you in March!

Julie Thiele



## Building a Storyline in Math Class to Make Third Grade Heroes: How I've Implemented **Building Thinking Classrooms** in My Daily Routine

by Caleb Austin

I've always taught math to my third graders with this set of questions in mind:

1. What is this asking me?
2. What do I already know?
3. What do I need to find out?

However, after attending a workshop sponsored by KATM this summer with Dr. Peter Liljedahl centered around his book, *Building Thinking Classrooms*, I have added a fourth question as well as implemented various components of Dr. Liljedahl's work in my classroom.

This fourth question is perhaps the most crucial question in math, yet it is so often overlooked in our systems built upon the data dais. The question is, "Can you explain how you know?"

The two day conference took place at a prime time for teachers who were excited about getting back into the routines of school. The early heat and humidity of August crept into the cafeteria of Bonner Springs High School as we all gathered to learn over the next two days. Immediately, we were up on our feet in the middle of the room. Then we begin our journey. We are given a task! We must work through this task with random strangers all the while our mentor, Dr. Liljedahl, isn't being incredibly helpful. He says things like, "oh yeah...that's interesting," and walks off. Or even more unnerving, he walks up to our vertical workspace, draws a big circle around part of our work and walks back to the middle of the room without a word to the group. We remind ourselves that learning occurs outside of our comfort zones (Mouradjian & Stengel, 2016) and we proceed.

As work on the first task wraps up, we all congregate in the middle again. Nervously, I begin to glance around at the work of other groups. I think about how most of the teachers here are secondary teachers and probably have much more sophisticated answers than I do. Some do, but overall our work appears to be of equal caliber. We begin at a vertical space and discuss thinking, reasoning, process, deduction, and so on. Again, I am nervously moving with the group. I've noticed that all the vertical work spaces we've been to as a group have had those big circles that Dr. Liljedahl put on our space, so I know it is only a matter of time before one of us will have to explain what was circled.

Finally, the time comes and we arrive at our space and Dr. Liljedahl essentially asks us, "how do you know you're right?"

At that moment, I finally saw what he had done and what "thinking classrooms" were all about. From the perspective of a student, foundations had been laid before me that kept me stable without "interrupting my flow of learning" (Liljedahl, 2020). I had been subtly supported, but more importantly, I was shown that I must rely on myself and those around me to gain understanding and come to a solution. He was there to nudge and encourage—not to push and tell. By doing this, my group had come up with a solution that was straightforward and completed the task. We had solved the problem! We had done what was expected of us and it was enough! How good it felt knowing that we had done that on our own!

Now, upon reflection, implementation, practice, and refinement as a teacher I see that Dr. Liljedahl was doing the incredible task of creating a narrative for the task based upon the feedback he was getting from students in real time. In response to this, he was also providing differentiated feedback to groups through his quips, circles on workspaces, and off hand questions to the group at large. This task was and is monumental, however, the pay off is immense!

I have found that in my third grade classroom, my students have benefitted the most from the narrative I create and we later talk through. By having a clear beginning, middle, and end of a task that students can see an evolution of thought and/or an increase in intensive thoughts from their peers, it inspires and encourages them to know and see that even though they may not have had the same intense thought process their classmate did, they did come to the same conclusion and now they have so much more background and understanding to work with when faced with a similar challenge.



## Building a Storyline in Math Class to Make Third Grade Heroes: How I've Implemented **Building Thinking Classrooms** in My Daily Routine

by Caleb Austin

Funnily enough, this line of thinking shows up again for my third graders when we learn about different kinds of storytelling and we briefly touch on the archetype of "The Hero's Journey". Here's a rough outline:

Act 1: "You're asking what of me? I'm not so sure about this, but I guess let's give it a go!"

Act 2: "This is a major problem. What have I experienced before that can help me out here? Who can help me?"

Act 3: "What can I discover? Did I fix the problem? Have I saved the day? I must recount my journey to impart my knowledge."

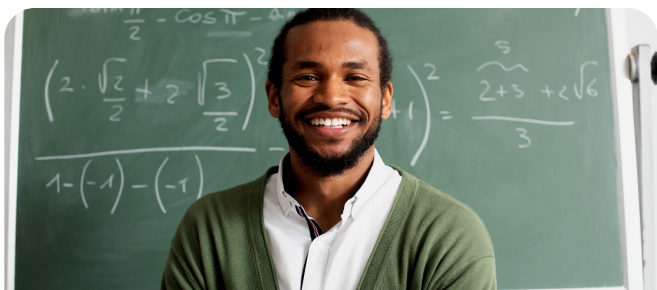
The parallel to be drawn between the hero's journey and Dr. Liljedahl's Building Thinking Classrooms is that when faced with a task, if we can center ourselves on understanding the problem, identifying what we already know to be true, followed by what we need to find out, and finally being able to explain what we have learned then we truly can conquer any task and become a mathematical hero. We can go through our trials with our mentor and ultimately journey headlong into the unknown only to emerge victorious on the other side with confidence, knowledge, and a renewed sense of self that is soothing to others.

I would like to thank KATM for hosting Dr. Liljedahl as well as providing the scholarship that allowed me to attend the event. Writing this article has reminded me of the power of story and connection in mathematics and how numbers have a narrative to teach us, if only we were to take the time to listen!

### References

Liljedahl, P. (2020). *Building thinking classrooms in mathematics, grades k-12: 14 practices for enhancing learning*. Corwin.

Mouradjian, D., & Stengel, J. (2016). Outside your comfort zone: Where the learning happens. *Journal of Perianesthesia Nursing*, 31(4), E47.



## Publish an article in a peer-reviewed journal!

KATM is excited to announce our first journal will be available sometime this year. This will be a tremendous benefit for our membership. We are excited to share articles, book reviews, and other information with our members.

If you are interested in having an article appear in our peer-reviewed journal, please read on for information about article types and the submission process.

[Click here to submit something to our Journal](#)

## Journal Article Types

### Theory to Practice

*Want to talk about a strategy or theory that you recently put into practice in your classroom? This is the category for you!*

These are articles where KATM members can share how they've implemented instructional strategies or theories in their classroom, and report on the successes and challenges associated with these implementations. Submissions should include a summary of the research, book, or theory, as well as details on how it was implemented in the classroom.

*Length: 2000 - 3500 words*



## Journal Article types

### Take and Use

*Have an activity you'd like to share with fellow KATM members? This is the category for you!*

These are articles where KATM members can share their tried and true lesson plans or activities with others! To submit a "take and use" article, please write a summary of the lesson or activity, outlining what you love about it, its goals, the course(s) or grade(s) you use it in, the KSDE mathematics standard(s) it addresses, and how it reflects best practices in teaching mathematics.

Pair this summary with a lesson plan and any handouts required for teaching when you submit.

*Summary length: 250 - 500 words*

### Reflections

*Have something you've been pondering and what to share? This is the category for you!*

These are articles where KATM members can share retrospectives about their teaching practice. This might be something you've recently learned, or teaching strategies you've shifted. It could be an idea that you've recently been questioning and revisiting in your mind. This is a space in the "Bulletin" where you can share your ponderings with other mathematics teachers.

*Length: 500 - 1500 words*

### Book Review

*Want to talk about a book you recently read about teaching and/or math? This is the category for you!*

These are articles where KATM members can write a review of a book related to math and/or mathematics teaching. Often, the books reviewed have recently been published (for example, in the past 5 years), but we are open to reviews of classic works as well.

*Length: 1000 - 1500 words*

Apply for a KATM Scholarship! It's so easy to apply!



Would you like to serve on the KATM board?

KATM is always looking for people to fill appointed and elected positions. If you are interested in serving on KATM and helping us accomplish our goals, [click here to submit a nomination.](#)



Apply for the Capitol Federal Scholarship by June !!

[Here is the place](#) to get information about applying for the Capitol Federal scholarship. It is awarded to a KATM member each year and it is so easy to apply!



Kansas Association of Teachers of Mathematics

Margie Hill New Teacher Scholarship--Deadline: June 1

After a well-spent lifetime growing her family, serving her community, and adding to the profession of mathematics education, Margie Hill passed away on September 21, 2021. Margie was a teacher first, investing time and skill in her students. She next invested in other teachers, serving as District Coordinating Teacher of Mathematics. Later investments of her energy and knowledge were made directly into future teachers as a Master Teacher in the UKanTeach Program at The University of Kansas. No matter her role or capacity, Margie was a model of what it meant to know one's values and, with focus and ferocity, let them guide one's actions. Because of Margie's dedication to preservice and new teachers KATM presents this scholarship opportunity.

Who: New teachers, first through third year, who are members of KATM and teach in Kansas.

What: \$250 funding.

For What: Funding may be used for tools, manipulatives, resources, professional learning or other means of supporting mathematics.

How: Submit a proposal outlining specifically how the funds would be used to support mathematics. Attach two letters of support, one from an administrator and the other from a colleague.

Submit proposals to Betsy Wiens, 2201 SE 53rd, Topeka, Kansas, 66609, or [betsy.wiens@gmail.com](mailto:betsy.wiens@gmail.com) by June 1.

