

I'm in Love . . . with Mathematics

Thomasenia Lott Adams



“How do I love thee? Let me count the ways,” wrote Elizabeth Barrett Browning in her 1850 *Sonnets from the Portuguese* (Sonnet 43). *MTLT* readers, I have something to tell you: I'm in love . . . with mathematics! You might ask how I know this. Well, let me start by giving you a peek into my early years.

When I came to know myself, I was the youngest in a household of 10. One of my earliest memories is being outside with one of my brothers, catching bumble bees in an old Coca-Cola® bottle and competing on who could catch the most bees. You can breathe: We released the bees!

I also remember, with my brother again, catching June bugs. This time, we commandeered thread from my mother's sewing box and tied the thread to the legs of the bugs and flew them like kites. Once again, we competed on who could fly the bug kites the highest. You can breathe again: We released the bugs too!

All summer long, we found things to do outside, where the world was our playground, and we had the gift of imagination to keep us busy. We spent most days picking things, counting things, organizing things, measuring things, lining things up, comparing things, and doing what we did not even realize we were doing: mathematics. And. We. Loved. It!

So, you see, I know what love—for mathematics—feels like, even outside of the classroom! I had a few “bumps and bruises” in schooling along the way, but

I am thrilled to say today that I still love mathematics. Again, you might ask how I know this. Well, here are three reasons I know I love mathematics:

1. I love being with mathematics. When I am working on a mathematical problem, I am with that problem all the way. I am concentrating on that problem, dissecting that problem, hypothesizing about the problem. That problem has my *complete* attention! I am focused and all in on that problem. (I am probably talking to the problem too!)
2. I love how knowing mathematics makes me feel. When I am confident about something mathematical, I am confident all around. When I have mastered a mathematical process, when I have made a mathematical connection, when I have successfully applied a mathematical concept, I am bursting with joy. At times I have jumped out of my seat to cheer because of reaching a point of success in a mathematical challenge!
3. I love how mathematics contributes to my life. Let's say I need to do some banking; mathematics steps in. I need to do some cooking; mathematics steps in. I need to take a trip; mathematics steps in. I need to plant a garden; mathematics steps in. I need to order some carpet; mathematics steps in. I need to budget for shopping; mathematics steps in. I need to schedule a series of meetings;

mathematics steps in. Every day, every time, when I need mathematics, it shows up big for me. What's not to love about that?

I could go on and on. However, I need to talk about something more important here: How can we set the stage for PK–12 students to develop a similar healthy relationship with mathematics? Tackling this challenge will put us in a better position to offer all students an opportunity to engage in and be successful in mathematics. So, how do we do this? Here are a few ideas for you to think about.

First, we must continue to challenge notions related to mathematics being something only “smart” people can do. When a student gets a whiff of the idea that mathematics is just for smart people—the moment that student accepts the thought of “I can't do mathematics; so I guess I'm not smart” or “I'm not smart, so I guess I can't do mathematics”—then we have lost the battle with that student.

There was a time when I did not think I could do mathematics. There was a time when I did not think that I was smart. So, from personal experience, I can say that it is a bad combination, and unless some helpful interventions disrupt this pattern of thinking, we are allowing students to miss out on their potential in mathematics.

Second, what ever happened to mathematics being fun? Now, I know that school cannot be all “fun and games,” but let me challenge you on this. Think of something fun you participated in recently. Think of how you felt and the details of the environment you were in: how it looked, how it smelled, the sounds you heard. Now think of something completely mundane you did, that you found boring, unappealing, uninteresting. Can you recall the level of detail in this scenario? Most likely not, but even if you can, are you happy about those details? Nope! Bottom line, if we know that we will stick with something that is enjoyable, why do we think this is not applicable to students in mathematics?

Students need the opportunity to enjoy mathematics. This can happen in so many unique ways. We can create scenarios for students to apply mathematics in ways that are meaningful to them. We can provide opportunities

for students to engage in healthy and mutually enjoyable competition in mathematics. We can select problems and tasks that are interesting and intriguing. We can help students study mathematics from different angles such as the history of mathematical ideas. Let's commit to making mathematics something students want to do, want to study, want to engage in, want to apply.

This is my final example, but it is not an exhaustive list of things we can do to help students develop a love for mathematics. Show your love for mathematics! I know this sounds simple, but it really works. When we are prepared to show our authentic awe and enthusiasm about mathematics and our genuine perplexity about challenges in mathematics, these actions become appropriate models for students to follow. Excitement is infectious! We can do this by learning *with* students rather than being the keeper of the answer key. A great general is leading the battle, not standing on a hill watching it!

We can model this leadership by giving students an opportunity to select or pose problems that they relate to and then honoring those problems with the same attention we give to problems we select. We can also provide space for students to voice their challenges as well as their successes in mathematics, and we can commiserate with how we have been stumped by mathematics as well.

Today, mathematical challenges are the norm, but it is up to us as educators to demonstrate our own mathematical challenges, concurrently upholding our love for it. As a member of the editorial board for this awesome journal, I am proud of everything we do in this journal. Serving NCTM in this capacity is a great privilege. However, for this moment, I am going to give a great big shout-out to *MTLT's* For the ♥ of Mathematics Department. I find this department irresistible!

The ideas, images, suggestions, challenges, and so forth that our readers contribute to spread their love of mathematics to others is something that I really appreciate. At times I might turn to this department first because I know what I find here will put a smile on my face and give me energy and encouragement as I read the rest of the journal.

I love mathematics. I want you to love mathematics. I want our students to love mathematics. —

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doi:10.5951/MTLT.2021.0332