

By: Ellie Wallace Published: January 17, 2025

Next in our series of blogs introducing you to our team, we have ALN's Director of Facilitators Carly Epstein.

The development of a positive math identity is not a linear process and Carly Epstein's math story demonstrates exactly that. Today Carly strongly believes that everyone can do math, but this wasn't always the case. In fourth grade, Carly's teacher would award students different color stars based on how many math facts they could complete in a minute. If a student got a certain level of stars they could pick out a new pencil. Carly was very good at memorizing and very competitive, so she remembers this as a fun and playful activity. This type of activity allowed her to believe that she was really good at math.

This feeling of being a "math person" didn't last long for Carly. Working with fractions in fifth grade that caused Carly to question her math ability. While she could remember what to do to get an answer, she didn't understand why it worked - and that was incredibly frustrating. In sixth grade, Carly noticed that she was pulled for small group work, making her think that her teacher didn't believe she could do the math the full class was working on.

Moving into seventh grade Carly was assigned to the lowest-level math class and didn't understand why. She knew the previous year was hard, but she didn't understand why she wasn't with her classmates. Throughout that year, in the lowest level math class, Carly didn't work with fraction concepts at all. Carly ended up moving up into the highest-level math class without having an opportunity to develop more fractional reasoning. In eighth grade, Carly skipped eighth-grade math for a high school-level math class. Being placed in this class helped her regain the feeling that she was good at math. But again, this feeling didn't last for long.

Although Carly continued to be in math classes with her friends she soon realized that she needed to work harder than the others to get by. She successfully struggled in other math classes until she got to Geometry in her junior year of high school. In her Geometry class, she "was lost." While trying to write geometric proofs Carly went to the teacher and asked for help, to which the teacher replied "If you don't understand this, I can't help you." That comment broke any positive feelings Carly had about math, so she stopped trying to learn math.

Carly went to college for Early Childhood Education and only took the required math classes for her degree, because she still felt like math was something she just couldn't do.

After being a classroom teacher for a few years Carly took a couple of classes from John Tapper, All Learners Network (ALN) Founder and CEO. One of those classes was a Math/Science Coaching Class. She took that class to work to improve science education at the primary level. She and John got to know each other through these classes. A few years later John became the Math Interventionist at the school where Carly was teaching. Carly asked John to come to her room so he could give her additional guidance. John joined Carly's math classes. They completed work analyses and had great conversations about Carly's students.

Now, when Carly facilitates or coaches in a school she carries with her those early math experiences, the math fact star chart, not understanding fractions, and being totally lost in Geometry. She uses them to highlight that people's math identities can change as long as they are open to learning. She has found that this is important for both students and teachers. Many teachers she has worked with feel like they need to have all the answers and know everything when teaching a subject, but that won't always be possible when allowing students to bring their own thoughts and ideas on how to solve a problem. Rather than just tell the student to think about it another way, Carly works with teachers to fully understand how the student is thinking to help make connections to the content of the lesson. The goal for teachers should not be to get students to "think like us" but to encourage students to think for themselves.

Now Carly's favorite thing about math is that, in direct contradiction to her fourth grade beliefs, it doesn't matter how quickly you can solve a problem. She embodies the belief that math identities can change. Math is and should be, about taking time to think about the problem and what a reasonable answer would be. It's not about solving problems by doing a memorized set of steps, it is truly about making sense of the problem rather than just the end result. **What Now?** Scan the QR code and scroll to the bottom of the post for links to next steps

- 1. If you haven't yet, check out our other Math Story blogs!
- 2. Check out our upcoming events (most of them are free!) that Carly and the rest of our facilitator team present!
- 3. Bring All Learners Network (ALN) into your school or district for embedded professional development.



