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Next in our series of blogs introducing you to our team, we have ALN Facilitator Josh Bunker.

From an early age, Josh felt like he solved the magic of math. He thought he got a peek behind the curtain and figured out how math worked.

From kindergarten to eighth grade Josh went to a Catholic school. When he was in third or fourth grade Josh had to stay after school to practice his multiplication facts with one of the nuns. He had been having a hard time memorizing these facts, and his mom was getting frustrated not knowing how else to help him. So he and a friend would spend time a couple times a week doing flashcards. After a while he had memorized the facts. He could do the math that was hard for him before. This was the first time he thought he saw the magic of math and helped him develop his identity as a math person.

This experience made Josh very focused on knowing the right next step in math. At this point, he thought of math as the teacher telling you the steps to take to get the answer. This idea followed Josh for a long time throughout his math career. Through high school and the beginning of college he knew that, although he might not be the best at math, he was good at it and could be successful with it.

Going into college Josh knew that he wanted to be a middle school math teacher. His college required that he start as a math major and then take secondary education classes after that. When Josh started taking Calc III his professor was an engineer and taught a lot of calculus based physics. In this class, of more applied mathematics, Josh



felt lost. He didn't know what steps to take to find the right answers. Another student told him that a different, more traditional, professor was teaching the same class the following semester. So Josh dropped the class and took it the following semester instead. This time the professor would introduce the problem and then show how to solve it, which is what Josh was looking for. He didn't see the importance in understanding why a formula worked as long as he was getting the right answer.

Later on in college, Josh took a Sets, Functions, and Relations class. This course required relational thinking and breaking down why different formulas worked into logical proofs. In this class Josh wasn't given rules to then figure out which rules to apply to which math problems. He had never thought about math this way. So he walked away thinking that the professor didn't know how to teach because he wasn't telling them how to do it.

When Josh graduated and started teaching he was excited to be able to show students the magic of math. He thought they would see it as a puzzle that could be pulled apart and solved in set steps just like he did. But he was shocked that some students weren't getting the right answers even though he was showing them exactly what to do. It wasn't until he started taking classes with Vermont Math Initiative (VMI), two or three years later, that he realized that it was his own understanding of what math was, and how to learn it, that was off.

Josh started at VMI because he was looking for a better understanding of how students learn. At the beginning of the first class, the instructor put a basic algebra problem up and they asked the group to solve it. Josh solved it very quickly. When he looked around the room, he was surprised to see people were struggling with it. Someone noticed he had solved it and asked "Can you solve it a different way?" That was when Josh realized that the curtain he thought covered the magic to math was just one way to look at math and that there was more than one curtain.

During his time with VMI, he was able to recognize the other ways that people thought about math and the different ways to solve problems. Through his years of being a middle school teacher, he saw students come into his class with math battle scars. When Josh was offered the chance to teach kindergarten, he took it. He felt he could interrupt the misconception about learning math and help steer students on a more positive path toward math success. Eventually he was looking to make a larger impact. That is when he joined the All Learners Network (ALN) team as a facilitator.

As an ALN Facilitator, Josh supports teachers in ensuring that all students have access to the problem being presented. In his work, he provides coaching and guidance to teachers so that they can confidently assist student's thinking, while centering the student and their learning. He also works on developing content for teachers to use in



their classrooms right away. Many examples of Josh's content creations are part of our online resources. One goal of this content - allow students to approach it however it makes sense to them. It is up to the student to use their own reasoning and sense-making to develop their understanding of math. There is no magic hiding behind curtains.

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 ALN Facilitator Tara Trudo's math story!
2. Sign up for All Learners Online (ALO) to get access to the content Josh is working on as well as much more!
3. Bring All Learners Network (ALN) into your school or district for embedded professional development.

