



Teaching Is a Journey From Then to Now

This department provides a space for current and past PK–12 teachers of mathematics to connect with other teachers of mathematics through their stories that lend personal and professional support.

Kevin J. Dykema

I never wanted to be a middle school mathematics teacher. I knew I wanted to teach mathematics but was sure I wanted to be a high school teacher . . . until the day I was offered an eighth-grade mathematics teaching job. It was August, and I wanted (truthfully, needed) a job, interviewed in a district, and was offered the option of teaching eighth grade or being one of three finalists for the high school opening. I opted for the sure thing, thinking that I would move to the high school as soon as the opportunity arose. Fast forward 26 years, and I am still teaching eighth grade and loving every (or almost every) minute of it!

I am sure everyone says their grade is the best to teach, but teaching eighth grade is absolutely amazing! I have the privilege to see how much students mature; an end-of-the-year eighth grader is so incredibly different than a beginning-of-the-year eighth grader. They still want to be people pleasers yet assert their independence at times. One of my goals each year is to help them appreciate and enjoy mathematics more than they have in the past. Every day is a new adventure with them!

As I reflect on my growth as a practitioner, I realize how much I have learned about teaching and learning and how much more learning I have to do! I have made some definite shifts from early-career teacher to now as I strive to meet the needs of each and every one of my students. I will share four of my biggest shifts below that help illustrate this journey to better meet the needs of my students.

FROM TEACHER CENTERED TO STUDENT CENTERED

I have switched my focus from what I teach to what my students are learning. As an early-career teacher, I know there were times that I said to myself, “I taught it—they should have paid better attention, or they should have asked more questions or asked for help.” I now realize that just because I thought my lesson was good does not make it effective; it was not truly good unless the students learned the concepts.

Formative assessment plays a much greater role than in my early career. I need to be consistently checking for student understanding and adjusting the tasks and my plans to meet their needs, which can be a very difficult thing to do. To meet the needs of each and every learner, I must know where each one is. For those who need some extra time to develop a deep understanding of the mathematics currently being learned, I need to work with them individually or in small groups to help meet their needs.

FROM CONTENT FOCUSED TO STUDENT FOCUSED

I realized after a few years (probably longer than it should have taken) that I teach students, not teach mathematics. At the start of my career, I focused on

ways to make the mathematics content clear and to help students see connections between topics. I thought my passion for mathematics would inspire them to want to learn more mathematics. Although that passion probably has helped, I realized that it was not enough—I needed to focus more time and energy on building relationships with my students.

I had heard, “They don’t care how much you know until they know how much you care,” but I did not really believe it. But I also heard from some of my colleagues, “Don’t let them see you smile until Thanksgiving.” Looking back at my early career, I wish I had paid more attention to the first saying. Establishing appropriate relationships with students to help them learn is so incredibly vital. I work hard to get to know each student as an individual, rather than merely a mathematics student of mine. Asking about weekend plans, siblings, and after-school activities has become a regular part of my conversations with students. I often jot notes so that I remember to follow up after a student shares about an upcoming event. The smile on their faces when I ask how their game was or how their recital went is priceless.

FROM “STRUGGLE IS BAD” TO “STRUGGLE IS NECESSARY”

As a new teacher, I worked hard to help my students avoid experiencing much struggle. I would give detailed step-by-step directions with clearly worked-out examples for them to follow and mimic. I created multiple different explanations of topics, so that reteaching did not mean “slower and louder.” After a few years, I realized I was doing most of the intellectual work, and my students were often not actively engaged. I also found myself becoming frustrated that they quickly forgot what I had “taught” them.

Around the same time, I started taking graduate classes in mathematics education and was introduced to inquiry learning and teaching. I realized that students must wrestle with the content to truly understand it. Implementing this in my classroom had some rocky moments, but I noticed my students becoming much more actively engaged in mathematics class and

starting to retain things longer. We were making the transition from “math by memorizing” to “math by understanding.”

I realized that we often recognize and appreciate the role of struggle in learning new skills, such as riding a bike, learning to swim, and playing a musical instrument. This same appreciation should occur when learning mathematics. Students must struggle and wrestle through the content to truly learn it, and one of my roles is to help support them through it. Some days are definitely better in my class than others with this. Years later, NCTM put a name to this with “productive struggle” in *Principles to Actions: Ensuring Mathematical Success for All* (NCTM 2014).

FROM “MY DISTRICT IS RESPONSIBLE FOR MY PROFESSIONAL DEVELOPMENT” TO “I AM RESPONSIBLE”

In my early career, I assumed the professional development I received from my school would be enough to help me develop my skills to help meet the needs of each and every one of my students. I was fortunate to attend some great sessions, but little was focused on teaching mathematics, so I worked with my mathematics colleagues to apply what was presented to our classroom situations. I began my masters in mathematics education coursework after several years of teaching and enjoyed the conversations and professional growth that was occurring. After graduating, I realized I would not naturally have those conversations and opportunities to think deeply about teaching mathematics unless I remained focused on it.

I made the conscious choice to become more involved in my state affiliate, which helped me grow professionally and eventually led to involvement with NCTM. I also realized I should be reading books about teaching mathematics, even though my school would not pay for them. Consistently reading, hearing, and reflecting on ideas about teaching mathematics are important for continuously developing new skills to try to meet the needs of each and every student. For an overview of my journey, please view video 1 ([link online](#)).

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FUTURE GROWTH

Although I have highlighted only these four major shifts in my thinking and learning throughout my career so far, I have learned many other things along the way; and many more could help me learn and

improve to better meet the needs of each and every student. Each year, I determine an area I want to improve on and often share this with my students and encourage them to help keep me accountable. The following are two areas that I want to grow in.

Video 1 Kevin Dykema Shares His Teaching Journey



 Watch the full video online.

1. Be more vocal in work around equity. I have been more of a quiet reflector and supporter in the past than an activist. I want to become more vocal in this work to continue challenging us to think about what must be done to help better meet the needs of each and every student and then take action. Through our collective efforts and consistently pushing one another, change is more likely to occur.
2. Improve my lesson closure. Often I don't do much at the end of the lesson other than dismiss students when the bell rings or have them work on some problems to help solidify their understanding. I want to improve on the closure because I know it is really more for the students' benefit than for mine.

If we want our students to appreciate and love learning, we must model that by continuing to grow professionally. I look forward to learning from and along with you in these next four years! —

REFERENCE

National Council of Teachers of Mathematics (NCTM). 2014. *Principles to Actions: Ensuring Mathematical Success for All*. Reston, VA: NCTM.