

Math Success with DMTI

YOUR KNOWLEDGE MATTERS MORE THAN THE TEXTBOOK

In today's edition, we explore:

- **The Classroom Reality:** Why a new curriculum rarely solves the real challenge
- **Your Professional Power:** How stronger mathematical knowledge transforms student learning
- **Strategic Advocacy:** What to ask for so you get the support that truly improves instruction and achievement

Educators,

How many times have you sat through a curriculum rollout thinking, *"This looks great, but how do I actually make it work with my students?"* You're not alone.

Research is clear: **your mathematical knowledge for teaching (MKT)**—your understanding of the math itself, how students develop it, and how to respond to their thinking—has a greater impact on learning than the specific curriculum in front of you. However, schools often invest heavily in materials and far less in the professional learning needed to help you teach those materials well.

This mismatch helps explain why student outcomes frequently remain flat despite "new and improved" programs. Understanding this helps you advocate for professional learning that actually strengthens your practice and benefits every student you teach.

The Budget Reality: Why You Get What You Get

Behind the scenes, district budgets make it difficult to fund the learning teachers actually need.

For every **\$100** your district spends:

- **\$80** goes to salaries and benefits
- **\$6** to facilities and utilities
- **\$3** to transportation
- **\$4** to special education
- **\$4** to technology

That leaves a about **\$3** for **all teacher learning** and **curriculum materials** across every subject.

Zoom in on mathematics:

- About **25 cents** of each \$100 goes to math materials
- Only **about 10 cents** supports **deep mathematical knowledge for teaching**, while **around 50 cents** goes toward curriculum-company training that focuses on using a product rather than understanding student

thinking

In other words, teachers often receive training on **how to use the tool**, not professional development on **how to teach mathematics**.

Your Knowledge Is the Real Game-Changer

Think back to your strongest teaching moments. They almost certainly came from your own understanding—not from a script.

When you deepen your knowledge of mathematical ideas and the ways students make sense of those ideas:

- **Instruction becomes adaptive** rather than rigid
- **Misconceptions become opportunities** for conceptual understanding
- **Connections across grades and topics come into focus**
- **Students' reasoning becomes the center of the lesson**
- **Professional confidence and autonomy grow**

This is not about working harder. It is about working from a place of clarity, purpose, and understanding.

What to Actually Ask For (And Why)

As districts consider how to support math instruction more effectively, here are high-impact forms of professional learning that research and classroom experience consistently show make a difference:

1. Content-Focused Coaching That Happens in Classrooms: Coaching that involves co-planning, co-teaching, observing, and analyzing student strategies—not just standalone presentations—builds instructional strength where it matters most: in the daily work of teaching.

2. Lesson and Unit Study: Structured collaboration in which teachers design, teach, observe, and refine lessons together. This practice deepens understanding of content, pedagogy, and student thinking in powerful, practical ways.

3. Demonstration Lessons by Specialists Who Teach Weekly: Seeing math specialists teach real students—specialists grounded in cognitive psychology, learning progressions, and K–8 pedagogy—helps teachers visualize productive questioning, representations, sensemaking routines, and ways to surface student misconceptions.

4. Professional Learning Grounded in Mathematical Knowledge for Teaching (MKT): Deborah Ball's research shows that MKT is one of the strongest predictors of student success. Teachers benefit from time to study:

- Big mathematical ideas
- Learning trajectories
- Common misconceptions
- Math models
- Structural language (unit, compose, decompose, partition, iterate, equal)

5. Protected Time to Study Student Thinking: Dedicated, paid time for teachers to analyze student work, rehearse instructional moves, and plan conceptually focused lessons leads to more effective use of any curriculum.

6. Free High-Quality Learning You Can Start Anytime: Teachers who want to begin strengthening their MKT immediately can use the **free Math Success Foundations Course** at mathsuccess.io, which introduces the seven key components of strong K–8 math instruction.

Your Turn to Share

We would love to hear from you.

What is one form of support that would genuinely help you teach math more effectively?

More time to collaborate? More demonstrations? Deeper content learning? Better coaching?

Share your thoughts at contact@dmtinstitute.com. We will compile and elevate your collective insights (anonymously) to help advocate for better teacher support across districts.

Keep inspiring mathematical minds!

MORE INFORMATION

This newsletter is just a preview—there is more to explore! For the complete research overview and additional videos, visit the “DMT Insights” page at dmtinstitute.com/research. You will find deeper insights, classroom strategies, downloadable resources, and more ways to expand your math teaching.

Have a classroom story, tip, or question to share? We love featuring educator voices and ideas. Email us at mathsuccess@dmtinstitute.com to contribute a teaching tip or share your experience—your story could be in our next newsletter!

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