
HOW DMTI BUILDS THE TEACHER KNOWLEDGE THAT DRIVES MATH ACHIEVEMENT

(DMT INSIGHTS COMPANION DOCUMENT)

A companion document for school and district leaders who have read **WHY TEACHER KNOWLEDGE IS THE KEY TO FIXING ELEMENTARY MATH**.

You have identified the core problem: teacher preparation is the most significant gap in math achievement. You have tried new curricula and workshops, but the needle has not moved. Student outcomes are still not where they need to be.

The challenge is clear: How do you build deep, lasting teacher expertise?

The Developing Mathematical Thinking Institute (DMTI) is your solution. We build the teacher capacity that makes *any* curriculum work. For over two decades, we have partnered with districts to close the preparation gap through sustained, research-based professional learning that transforms classrooms from places of procedural memorization to hubs of mathematical sense-making.

The DMTI Difference: Building Teacher Expertise from the Ground Up

Traditional PD often fails because it is fragmented. DMTI's unique power lies in how we **coherently integrate** the three pillars of effective instruction:

1. **Deep Mathematical Knowledge:** Teachers master the *concepts* behind the procedures—understanding units, structure, and the "why" of operations.
2. **The Science of Learning:** We equip teachers with knowledge of developmental trajectories and common misconceptions, allowing them to diagnose and address the root of student struggles.
3. **High-Leverage Pedagogy:** Teachers learn and practice routines for rich discourse, using models with purpose, and a consistent "structural language" that builds student reasoning.

This integrated approach ensures that teacher learning translates directly into improved classroom practice and student achievement.

Our Proven Pathway to Results

We partner with you to create a multi-year professional development system tailored to your district's goals and curriculum.

1. Sustained, Content-Rich Professional Development

We move far beyond the "one-and-done" workshop. Our PD is a continuous learning journey designed to build expertise over time, featuring:

- **Summer Institutes:** A structured, three-year sequence that builds a deep, coherent understanding of K–8 mathematics.
- **Embedded Coaching & Modeling:** Our specialists work side-by-side with your teachers in their classrooms, co-teaching lessons, modeling instructional routines, and providing immediate, actionable feedback.
- **Job-Embedded Collaboration:** We facilitate Lesson and Unit Study cycles where teacher teams plan instruction, analyze student work, and learn to anticipate student thinking—making your PLCs more effective.

This sustained model ensures new practices are learned, practiced, refined, and mastered.

2. Enhancing Your Curriculum, Not Replacing It

You have not wasted your money on your core curriculum. We help you *activate* it. Our PD teaches your staff how to:

- Unpack the mathematical depth of your units.
- Use models (number lines, arrays, bar models) intentionally to reveal core concepts.
- Facilitate discussions that make student thinking visible.
- Supplement effectively to address gaps and extend learning.

Whether you use Eureka, Bridges, enVision, or another program, DMTI PD ensures teachers have the knowledge to teach it to increase student achievement.

3. Resources That Reinforce Teacher Learning

We provide high-quality instructional resources—from targeted activities to diagnostic assessments—designed to reinforce the pedagogical practices we teach. These are tools that help teachers immediately apply their new learning, strengthening conceptual teaching and productive discourse.

Evidence of Impact: We Deliver Measurable Results

Our approach is not just theoretical; it has been proven in districts across eight states. Partners who implement our program see measurable improvements in:

- **Teacher Knowledge:** Significant growth in mathematical content and pedagogical knowledge.
- **Instructional Quality:** Classrooms shift to discourse-rich environments focused on reasoning.
- **Student Achievement:** Significant gains on state assessments and measures of conceptual understanding.

DMTI possesses one of the nation's only randomized controlled trials (RCT) demonstrating that a math professional development program can produce significant student achievement gains.

Your Next Step: Invest in Your Teachers, and Watch Your Students Soar

The research is clear: the most powerful lever for improving student achievement is investing in teacher expertise. While districts often spend heavily on curriculum and lightly on PD, DMTI helps you flip that script for a lasting return on investment.

Ready to transform math teaching and learning in your district?

Contact us today to schedule a conversation and explore a partnership:

contact@dmtinstitute.com | mathsuccess.io

Let's stop plugging holes and start building a foundation for lasting math success.



For more information, contact@dmtinstitute.com or follow us on social media:



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