

# Making Math Real

Since 1996, Making Math Real, through its 10 Institute seminars, provides comprehensive professional development for all parents, educators, and educational institutions for teaching our original and innovative **simultaneous multisensory\* structured\*\*** mathematics to **ALL** students, K-12.

*\* **simultaneous multisensory** means all instruction activates and links all three processing modalities (senses), visual, auditory, and touch/motor, at the same time. Receiving the same information on all three processing modalities maximizes successful processing and development for students of all ages.*

*\*\* **structured** means all instruction starts from the most basic, elemental foundation and builds developmentally in an incremental and systematic progression from the concrete to the abstract. The structure also functions to support successful processing and comprehension in which each current learning structure provides the essential connections for the next; and the next learning structure adds only one new element.*

**A simultaneous multisensory structured methodology for Making Math Real: *Math is a series of interconnected codes – a symbolic shorthand to express what is real.***

Making Math Real is the **FIRST** and **ONLY** simultaneous multisensory structured methodology to successfully **TRANSFER** the hands-on experience of concrete mathematics to its specific reconstruction in abstract, symbolic form.

- **The Focus** of Making Math Real is the integration of key cognitive developments that directly support executive function and working memory with comprehensive knowledge of mathematics for students of all ages and abilities, LD through gifted.
- **The Design** of Making Math Real is to embed this integration within all of its methodologies.
- **The Purpose** of Making Math Real is to provide this developmental integration for the full diversity of processing styles across all math content and grades.

## WHAT MAKING MATH REAL IS:

- For All Students and All Grades, K-12
- For All Processing Styles and Abilities, from LD to Gifted
- Directly Connected to Research in Neurobiology and Cognitive Science
- Developing Working Memory and Executive Function Integrating All Math Content from Pre-K through Calculus
- Direct, explicit instruction
- Intensively Incremental and Systematic
- Making All Math Content Connected, Meaningful, and Real
- Developing Concept-Procedure Integration: Comprehension – Not Memorization
- Teaching Students to be Independent Mathematical Thinkers
- Helping the Teacher BE the Teacher, not the facilitator

**Making Math Real is a simultaneous multisensory structured methodology – not a curriculum.** The design and intent of its methodology is to empower educators to be clinically prescriptive to serve all students' processing needs, from special needs to gifted, and spanning all math content from the earliest developments of number sense through calculus.

Students are diverse and multi-dimensional. They need and deserve well-trained and experienced educators. Teaching is a clinical practice, not casual work. To help educators become clinically prescriptive with their students, it is first essential to help educators expand their abilities beyond the extreme limitations imposed by programs that direct the teaching, and tests that direct the programs. To successfully reach the highly diverse students in our classrooms, private practices, and homes, educators must be able to engage their clinical observations and assessments of students' affective and cognitive indications that directly reveal how and why they are processing information the ways they do. Without this clinical ability to understand how students are functioning, educators are consequently teaching blind and are eminently capable of allowing fashion/trend/philosophy to override common sense and appropriate clinical practice.

All of the Making Math Real seminars provide direct instruction to help you, the educator, become clinically aware of your student(s)' processing indications so that you can prescriptively align your teaching to their needs. No student, young or old, can change how they process. It is always up to the educator to be clinically adaptable to deliver curriculum in the way our students process information – not the way the

teachers process information, and especially not the way the textbooks/programs/software require students to process information.

Making Math Real has garnered a worldwide reputation as the only successful intervention for students with math learning disabilities. However, Making Math Real is for everybody, not just for students with math LD. Making Math Real is a methodology that prepares educators to prescriptively reach all students in general education, gifted education, twice exceptional, and special education.

**WHAT MAKING MATH REAL IS NOT:**

- only for math LD
- Discovery method
- developmentally inappropriate scopes and sequences
- teaching by assignment
- current trends overriding common sense practice
- scattered and disconnected content
- cumbersome, ineffective, and confusing “new” algorithms
- confounding “open-ended” instruction
- blaming students when they don’t “get it”
- rote memorization and drill
- learning from everyone and everything that is NOT the teacher
- instructional practices disassociated from how the brain does math
- speed testing
- responding to students’ earnest questions by referring them to their friends and/or online support
- teaching the way the teacher processes
- math presented as a procedural recipe disconnected from comprehension
- unstructured investigation
- tips, tricks, or shortcuts