

PROGRAM ELEMENTS

The Teaching One Moore approach has evolved over the last seven years to improve its results with students and educators. While the Teaching One Moore approach has always included aspects of Cognitively Guided Instruction (CGI) in math, e.g., problem-solving, allowing students to solve problems without direct instruction, and letting student thinking guide the instruction, Teaching One Moore has long realized the need to answer the following questions for administrators and educators in high-needs schools to improve implementation and student success:

- What does CGI look like and sound like in my classroom?
- How can I help students solve word problems when they are reading below grade level and lack adequate reading comprehension skills?
- How do I support students performing below grade level in mathematics?
- What do I do when students don't know what to do?
- How does CGI math work with English learners?
- How do I manage challenging student behaviors during math time?
- How do I implement CGI math in my class and prepare for assessments, e.g., the California Assessment of Student Performance and Progress (CAASPP), Smarter

The Teaching One Moore team has created a researched-based approach to mathematics that incorporates aspects of CGI math, addresses teacher concerns, and has proven effective at raising mathematics proficiency scores at several LAUSD schools and other urban school district high-needs schools. In alignment with LAUSD's priority to ensure all students are proficient and college and career-ready, and engaged, Teaching One Moore has designed an approach to mathematics enrichment and intervention that serves to support the achievement of the District's goals by:

- 1) presenting a replicable and simple systematic approach that teachers can immediately remember and implement with their students live and virtually
- 2) demonstrating instructional practices for teachers in their classrooms and with their own students
- 3) demonstrating multiple comprehension and SDAIE strategies teachers can use to ensure all students can comprehend and access the mathematical content
- 4) sequencing problems that move students from beginning strategies to grade-level-appropriate strategies to prepare students for assessments, e.g., Edulastic, CAASPP, SBAC,
- 5) providing checklists for administrators and educators to guide their work

Each component of Teaching One Moore's support (professional development training, classroom instructional practices, student interventions, administrator support, and family engagement), is divided into five elements represented by the five fingers on a hand. The hand serves as a handy visual reminder of what step(s) come next in the process.

Part I.

Deliverable: Participants will be given Professional Development Workshops will focus on developing teacher mathematical content knowledge and how, when, and why to use mathematical word problems in classroom instruction.

1. Identify the Common Core State Standards that explicitly state the use of mathematical word problem types.
2. Identify the text structures of the CCSS mathematical word problem types. Tables A and B in the CCSS.
3. Connect CCSS problem type structures to literacy text structures.
4. Use graphic organizers to highlight the structures, language, and sequences in CCSS mathematical word problem types.
5. Use students' experiences, home lives, and community as content for writing CCSS aligned mathematical word problems.

Measurables: After training attendees will be able to:

- highlight and point to CCSS standards in handouts
- identify problem text structure on Tables 1 and 2 in CCSS Glossary
- identify problem text structure when given a word problem
- break down a word problem into its text structure when given a graphic organizer
- use an example from students' lives, community to compose a CCSS aligned word problem

Part II.

Deliverable:

Model for participants during professional development workshops and virtual or in live classroom demonstrations, how to get students to demonstrate their comprehension of mathematical word problems/concepts, by creating mathematical models independently, and connecting word problems and models to multiple representations, using the five-finger technique. The Standards for Mathematical Practice (SMP), English Language Development (ELD), and English Language Arts College and Career Readiness (ELACCR) standards are listed next to each step in the classroom lessons.

Teachers will show the fingers on a hand, one at a time, and ask students to demonstrate the following:

First Hand-

1. **Demonstrate comprehension of the problem i.e. identify word problem text structure, language, symbols, number name(s).**

SMP #1, #3

ELD- Collaborative, Interpretive

ELA - CCRA- 1-5

2. **Create a mathematical model of the problem independent of teacher modeling.**

SMP #1, #3, and #4

ELD- Interpretive, Productive

3. **Label their mathematical model with the correct amount or unit of measure.**
SMP#5, #3
ELD- Productive
4. **Create an equation that matches the model or problem with teacher coaching.**
SMP - #2, #3
ELD - Interpretive, Productive
5. **Use an alternative equation or model to represent and extend their thinking with teacher coaching.**
SMP #2, #3, #4, #7, #8
ELD- Interpretive Productive

Measurable: After workshops are delivered, participants will be able to:

- point to/ name the purpose for each of the five fingers in supporting their students in demonstrating their thinking
- lead a classroom lesson by posing a CCSS aligned word problem using the five-finger technique to guide students through the problem-solving process

Second Hand- Each number represents a different finger and communicates an expectation to be taught, learned, and applied.

Deliverable: Model for participants how to get students to explain their understanding of mathematical word problems/concepts, in increasing degrees of complexity using verbal and written explanations (words, sentences, transition words, academic vocabulary, and justifications), using the five-finger technique.

1. **Students explain their process verbally.**
 - SMP- #1, #3, #6
 - ELD- Collaborative, Interpretive, Productive
 - ELA- CCRA 1-10, CCRAW- 1-5
2. **Students explain how they solved the problem using the transition words first, next, then, and last.**
 - SMP #3, #6
 - ELD- Collaborative, Interpretive, Productive
 - ELA- CCRA 1- 10, CCRAW- 1-5
3. **Students include academic vocabulary in their structured explanations by adding academic vocabulary where applicable or by replacing everyday language with academic language i.e. “I divided the cake into equal pieces.” as opposed to “I cut the cake into equal pieces.”?**
 - SMP #3, #6
 - ELD- Collaborative, Interpretive, Productive)
 - ELA- CCRA 1-10, CCRAW- 1-6

4. Students justify in writing how and why they solved the problem by adding the word because i.e., *I divided the cake into 4 equal pieces because 4 students needed to get an equal piece.*

- SMP #3, #6
- ELD- Collaborative, Interpretive, Productive
- ELA- ELA- CCRA 1-10, CCRAW- 1-6

5. Students create their own word problem based on a CCSS standard and problem type structure.

- SMP #3, #6
- ELD-Productive
- ELA- CCRA 1-10, CCRAW- 1-6

Measureable: Given training on how to get students to explain their thinking using the five finger technique, participants will be able to:

- Name or list the purpose for each finger
- Guide a classroom lesson, small group lesson, or student conference through the different stages of their explanations

Part III.

Professional Development Workshops on Teacher Intervention-

Deliverable: Participants will learn how to:

- analyze student work based on the five most prevalent areas of need
- categorize student work into five categories depending on student needs
- Understand the teaching points that will support student needs and misconceptions
- select one teaching point to support or extend student mathematical thinking

- 1.) Is student error due to lack of comprehension? -
- 2.) Is student error due to disorganization of their mathematical model or representation? -
- 3.) Is student error due to inefficient strategy?
- 4.) Is student lack of engagement due to inefficient strategy?
- 5.) Does the student need a mathematical challenge?

Measureable:

After professional development training, participants will learn how to:

- identify students area of need based on student work samples
- sort student work into like groups based on student need
- provide students with a teaching point to improve level of work or promote student thinking
- lead a small group or one on one conference using a guiding teaching point

Part IV. Administrator Support

Deliverable:

Provide student data, classroom video, photos, and feedback on professional development workshops to administrators and develop 2-3 next steps in the process to support student achievement and teacher implementation.

Measurables:

Administrators will be able to:

- use observation guides and checklists to ensure staff is able to implement the professional development training
- Observe of five-finger technique lesson on problem-solving
- Identify the model five-finger technique in student explanations
- Identify text structures in student work/classrooms
- Observe a small group lesson/conference using student work and a teaching point to improve student performance

Part V. Parent, Community, and Family Engagement

Deliverables:

Provided with well-planned and facilitated family engagement events, that take into consideration that memories of mathematics classes are not always pleasant for parents and caregivers. Facilitators will demonstrate for families and caregivers the five-finger techniques used in classrooms.

Measurables:

Families and caregivers will be able to:

- Use the five-finger technique to guide students through the problem-solving process with students at home.
- Be clear on what is expected of their students.
- Teachers, students, and families speak a common language.
- know they are welcome, wanted, and appreciated,
- have opportunities to share their lives and values in the classroom by sharing their thinking, students learn that they have valuable and valued contributions to make to the classroom community, school community, and the community at large.

Exhibit B**PRICE SCHEDULE**

Description	Unit Price
Full-Day (7 hours) In-Person Professional Development Workshop and Live Classroom Demonstration Lessons - Teacher Planning Guide included	\$2,000.00
Full-Day (7 hours) Virtual Professional Development Workshop and Classroom Demonstration Lesson - Teacher Planning Guide included	\$1,500.00
Full-Day (6 hours) In-Person Classroom Coaching and/or Co-Teaching Only	\$1,800.00
Full-Day (6 hours) Virtual Classroom Coaching and/or Co-Teaching Only	\$1,350.00
After School (2 hours) In-Person Professional Development	\$600.00
After School (2hours) Virtual Professional Development	\$300.00

(2 hours) - Family Engagement Event Facilitation plus 3 hours of facilitator planning	\$1,500.00
<p>9 Full Days (7 hours/day) Package</p> <p>Includes:</p> <ul style="list-style-type: none"> - Professional Development Workshops and Live Classroom Demonstration Lessons -Teacher Planning Guide - 3 hours of virtual Administrator coaching on strategic planning and program implementation 	<p>\$16,200 (in person)/ \$12,150 (virtual)</p>