ST Math

K-8 Visual Instructional Program

PROFILES IN SUCCESS

Pomona Unified School District
CALIFORNIA

Making Math Accessible to the Youngest Learners

As a district with a high English Learners (EL) population, Pomona Unified School District in southern California was in search of a way to make math accessible to students of all language needs and backgrounds. With a shift in more rigorous standards, Pomona educators knew they had to reach students as early as possible, starting with their youngest learners.

"Teaching four-year-olds that are just entering the school system is a challenge in itself," says Christine Seitsinger, Child Development Program Administrator at Pomona Unified School District. "Add a language barrier to that, and the goal to help these students grow in the one to two years that we have them becomes even more challenging."

Paving the Way for Problem Solving and Critical Thinking

Along with removing language barriers, Pomona USD also wanted to enable outside the box thinking for younger students to help build a solid foundation in learning. Seitsinger and her colleagues decided on ST Math®, a visual learning program that introduces core math concepts.

They were excited by ST Math's ability to address the unique developmental needs of all of their students, especially those who are struggling. "Students are able to build a foundation without language, so ELs are making the same strides as their peers," explains Seitsinger. "ST Math makes transcendental concepts more unambiguous for pre-kindergartners."

Early learning teachers use ST Math as a way to break down more complex mathematical concepts, like measurement, to their most basic level. "So many learning opportunities are abstract. ST Math is helping to form students' brains in a more concrete way," observes Seitsinger. "They understand and they acknowledge what it is that they're seeing, and then move into more of the abstract experience." By giving early learners concrete building blocks, ST Math fosters deep, conceptual understanding for more advanced, abstract math later on.

> Educators can truly see the effects that ST Math has on children - not just in mathematics, but in problem solving overall.
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> - Christine Seitsinger, Child Development Program Administrator, Pomona USD

Seitsinger often observes teachers and students applying the concepts taught by ST Math both in and out of the classroom. "Teachers are taking opportunities such as meal and playtime to explore the teacher-directed activities presented by the ST Math program. They can truly see the effects that ST Math has on children - not just in mathematics, but in problem solving overall."

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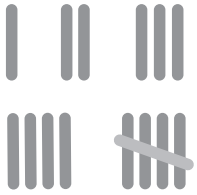
District Facts
District Grade Levels: PK-12
District Enrollment: 24,673
District Type: Large, Public, Urban
Number of Schools in District: 42

Demographic Breakdown
Hispanic: 86%
African American: 5%
Asian: 5%
Caucasian: 4%
FRL: 83%
EL: 50%

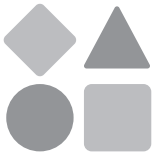
ST Math Implementation
Grades using ST Math: PK-12
Type of ST Math instruction:
Computer lab, in-class instruction

ST Math students showed significant gains in all sub-skills assessed:

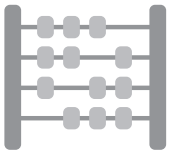


Counting

Comparing and Ordering Numbers



Features of Shapes



Patterns and Pre Algebraic Thinking

Establishing Growth Mindset Early

Implementing ST Math within early learning grades is resulting in tremendous growth for Pomona USD. "By the time that our children get to third grade, data shows that they are making advancements. I do believe wholeheartedly that the ST Math component at age four has made that difference. It's the only factor that's different," reports Seitsinger. A 2015-2016 year-end report on ST Math: Early Learning in Los Angeles county, confirms Seitsinger's observations. The report shows that on average, children at all school sites analyzed made statistically significant gains from pre- to post-test on all measured mathematical tasks.

Educators are also seeing the long-lasting impacts of early and faithful implementation of the program. ST Math is leveling the playing field and creating more capable problem solvers - benefits which last well beyond one school year. "Elementary teachers can tell which students have gone through ST Math because of their confidence and lack of hesitation to take risks," says Seitsinger. "In later grades, they're grasping basic concepts better than those students not using ST Math."

Creative problem solving is the now the new normal in Pomona classrooms. Students come to school excited to tackle new mathematical challenges without hesitation, no matter their language abilities. Seitsinger knows that whatever the next math challenge is, students are ready. "We're tapping into the growth mindset at such a young age. Logic and reason are present and students are really seeing the math. We're not just thinking inside that little, tiny box anymore."