

# Los Angeles Unified School District

*Serving more than 750,000 K–12 students, Los Angeles Unified School District (LAUSD) is the second largest school district in the nation.*

## District Overview and Needs Analysis

In 2001, LAUSD created an initiative to give educators the support they needed to help students develop their mathematical thinking, reasoning, and communication skills. Matthias Vheru, then District Math Specialist, explains: “We believed the best way to do this was to support teachers in becoming more confident in their own mathematical understanding.

“We were looking for a professional development program that could provide teachers with a hands-on approach to learning and innovative ways of getting concepts across to students,” Matthias continues. “As the discussions progressed, the elementary team kept raising the name of Math Solutions.”

Dianna Masters, then Director of Mathematics, had previously worked with Math Solutions when she was principal of one of the nation’s lowest-performing schools. In one year, the school turned around and became one of the district’s highest performing. During an initial planning meeting, Masters stated, “What is impacting student success is Math Solutions.”

## The Launch of Meeting the Math Challenge

By fall 2001, LAUSD was ready to launch the Meeting the Math Challenge initiative and approached Math Solutions to help develop three five-day “institutes” for the district’s 290 math coaches.”

“We started our work with math coaches,” Matthias explains, “because they are best qualified to work with teachers at the school site. We wanted to ensure that the coaches had a thorough understanding of how mathematics is learned, so that they could pass

this information on to teachers through one-on-one lesson demonstrations.”

As part of the Meeting the Math Challenge initiative, the five-day Math Solutions courses were responsible for helping math coaches:

- Gain confidence in their math content knowledge by developing their understanding of mathematics
- Build their confidence to work across the K–5 and 6–8 spectrum
- Model lessons that they can demonstrate in classrooms

The first year was met with positive feedback from both the math coordinators and coaches. Merrie Wartik, Math Coordinator from Local District 3, says: “My math coaches were thrilled to participate, without exception. They really valued the collaborative approach to lesson preparation, and they loved having additional time to practice and present lessons.”

Since then, Merrie has incorporated the Math Solutions inservice experience and the lessons from Math Solutions publications into her monthly sessions with math coaches. “I print a list of Math Solutions books and have the coaches sign up to present lessons at various grades levels, K through 5,” she explains, adding, “It’s just been wonderful. We form teams of two and three, and the coaches present to their peers. This way, they are able to build a repertoire of lessons from all the Math Solutions books, helping them meet their learning objectives.”

Between Math Solutions sessions, Math Solutions Education Specialists met with LAUSD team members to refine and customize the content and activities for the following summer. In the second year of partnership (2003), the *Math Coach Institute* sessions focused more on California Key Standards, most notably, the Algebra and Function Standard.

## Positive Results Expand the Initiative

Results of the work were evident immediately and prompted the decision to expand the partnership even further in the third year to include sessions for teachers. Says Matthias, “Teachers began implementing the lessons in their classrooms, and word spread. Soon, we realized that the math coaches would have more success demonstrating these activities and pedagogies if the teachers, too, had a common language—a common base of understanding—in which to discuss their experiences.”

Merrie agrees. “One of my coaches walked into a classroom and immediately recognized the lesson being taught—it was one of the lessons we’d presented at our coaching session just the day before. When teachers are familiar with the Math Solutions lessons, math coaches are better able to coach.”

The Math Solutions course *About Teaching Mathematics, Part 1* offered for the first time to LAUSD teachers in summer 2004, was designed to help teachers become more confident in their understanding of mathematics and to:

- Build mathematical content knowledge
- Deepen their understanding of the California Key Standards
- Focus on problem solving in all areas of the mathematics curriculum
- Organize the classroom for cooperative and individual learning
- Understand how children learn, and apply this pedagogy into classroom instruction
- Use reasoning standards to support students’ understanding of concepts
- Use manipulative materials to support student learning

The 2004 summer courses filled up immediately. In fact, Matthias said, “I remember the first session in June—we had about 1,000 to 1,500 teachers on the waiting list. Since then, we’ve offered subsequent and multiple sessions during the school year.”

Additionally in summer 2004, a new course was offered for first-time math coaches: the *New Math Coach Institute*. Activities and content in this session focused on California Key Standards and demonstrated how coaches could support teachers as they implemented new strategies and lessons in the classroom.

The district has also made significant efforts to build capacity for improved instruction at the school level. Throughout spring and summer 2005, LAUSD offered seven five-day courses to its teachers. A *Part 1* course was offered in summer 2006.

## Professional Libraries Extend Coaching

LAUSD added Math Solutions publications to its pacing guide and provided them to all teachers in the district. “Teachers love having these books, and they use them as resources for inspiration,” Matthias said. “Math Solutions publications support our philosophical approach to enhancing student learning and understanding.”

He sums up the experiences: “Our teachers are becoming more and more innovative in their lesson preparation. We see more discourse around lessons and greater implementation of the strategies we’d like all teachers to be using.”

Marie Stevens, Elementary Mathematics Specialist, agrees and adds, “Math Solutions gives teachers depth of content knowledge understanding beneath a firm pedagogical foundation. Our teachers have benefited a great deal from this inservice partnership.”