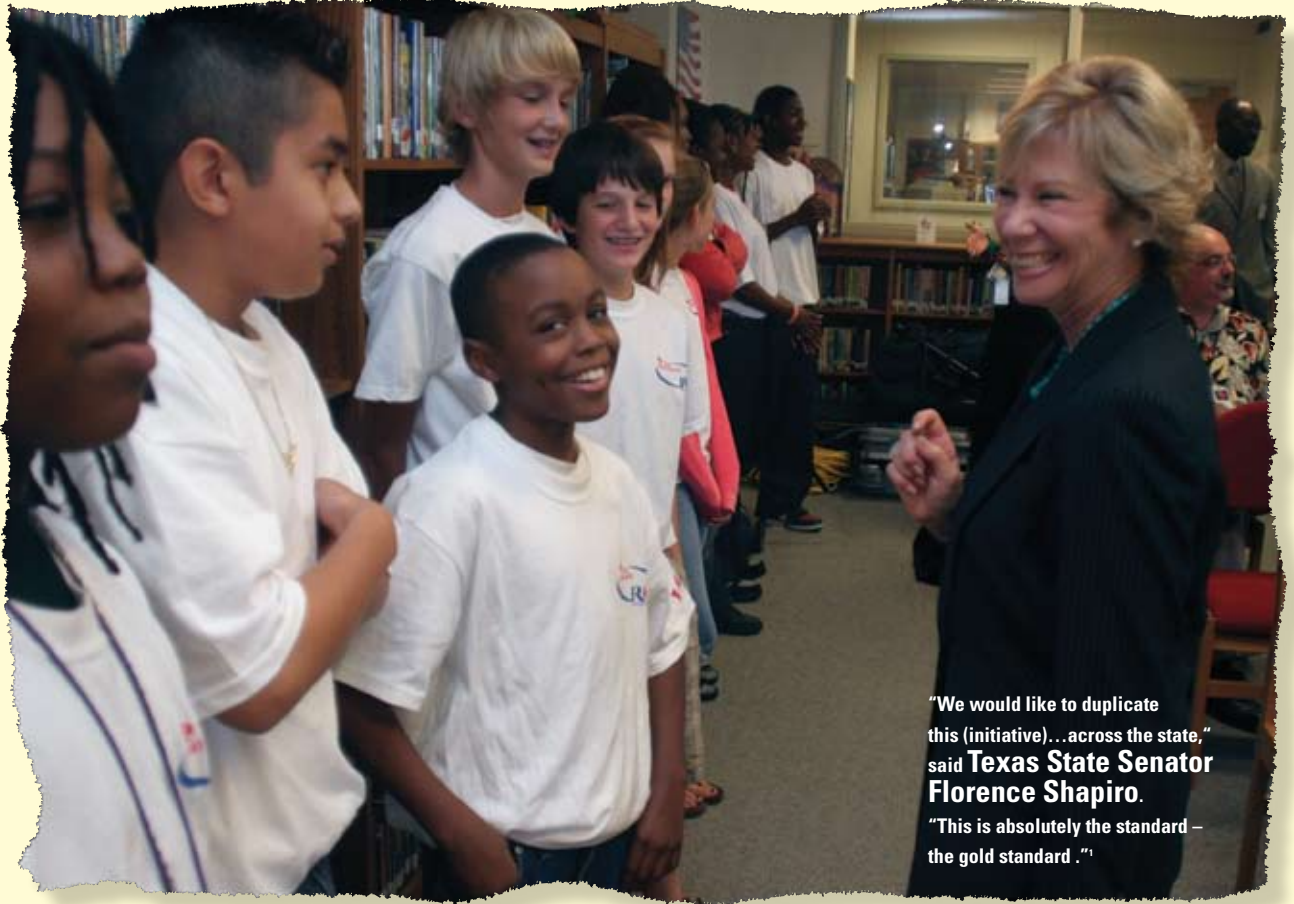


Richardson Independent School District **Mathematics Intervention**



"We would like to duplicate this (initiative)...across the state," said **Texas State Senator Florence Shapiro**.
"This is absolutely the standard – the gold standard."¹

Intervention results reported by independent researchers* are significant.

Students have a more positive attitude toward math, are fully engaged in the lesson and ready to participate in class.

They score better on statewide standardized mathematics tests. Performance gaps are decreased. Schools are improving their district rankings. Educators are learning new ways to refine their teaching techniques.

The Texas Instruments (TI) mathematics intervention initiative supports the positive impact of educational technology on student achievement.

These interventions, jointly developed and implemented by TI and partner school districts, help identify the components of successful mathematics programs, while also improving the way mathematics is taught.

Research-based and systemic by design, TI's intervention initiative provides a model that can be replicated and scaled into school districts throughout the United States.



The Challenge

Lake Highlands Junior High's student population includes a large cross-section of economically disadvantaged 7th and 8th graders – as well as a number of newly transferred students whose families had relocated to Richardson from areas affected by Hurricane Katrina.

Socio-economic and various special circumstances made it difficult for these middle grades students to perform to their potential in math-related subjects.

A point of concern for Lake Highlands Junior High: Student passing rates on state assessment testing (Texas Assessment of Knowledge and Skills –TAKS™) had been declining.

The Intervention

For the 2005-2006 academic year, Lake Highlands Junior High served as a model pilot school for others to follow. During the course of three days prior to starting a new school year, RISD officials and TI representatives collaborated closely to define the scope of the research-based, systemic mathematics intervention.

Several key elements were implemented, as well as TI graphing calculators and the TI-Navigator™ classroom learning system – designed to enrich classroom instruction and assessment.

TI also delivered to teachers additional professional development focused on content and how to integrate the technology into the classroom.

Key components of the mathematics intervention:

- Focused professional development for educators
- Added technology training for educators
- Extended class time to 100-minute “power blocks”
- Reduced teacher-to-student ratio in the classroom
- Established higher learning expectations of students
- Accelerated curriculum and higher standards
- Implemented benchmarking tools to track student progress
- Increased support from administrators and parents
- Enriched instruction and assessment using TI graphing calculators and the TI-Navigator™ system



From At-Risk to Increased Achievement

At Lake Highlands Junior High in Richardson, Texas, something exciting is happening. Math classes are alive with activity. In fact, they're rather noisy – and that's okay. Just ask the teachers. They'll tell you that their students are no longer timid about asking questions, calling out answers and sharing ideas with others.

Math is fun and the students are taking an active role in learning critical problem-solving skills.

Thanks to a joint mathematics intervention initiative between the Richardson Independent School District (RISD) and Texas Instruments (TI), students are wanting to learn the math and it shows.

Average student scores on the Texas statewide standardized mathematics test have actually increased. This is especially relevant since it comes at a time when the district has recorded a decline in overall scores.





The passing rate on the 2005-2006 Texas standardized mathematics test jumped up to 33 percent among a group of students who had all previously failed the test.



The use of educational technology from TI included: the TI-73 Explorer™ graphing calculators designed specifically for learning middle grades math concepts and the TI-Navigator™ classroom learning system, which provides wireless communication between student graphing calculators and the teacher's computer.

The Outcome

As a result of the intervention, 33 percent of the pilot students, who had all previously failed the TAKS, successfully passed and individual test scores increased by an average of six points. The pilot program's students also showed continual improvements on benchmark assessment exams given throughout the year.

The positive impact of the mathematics intervention has contributed to RISD's improvement from "acceptable" standing to "recognized" under the Texas accountability rating system. The district and junior high school successfully met "Adequate Yearly Progress" (AYP) standards under the federal No Child Left Behind rating system.

"We made significant changes to our approach to mathematics education for at-risk students, creating a total solution that encompassed every facet of our mathematics program," said Lorine Burrell, principal of Lake Highlands Junior High. "The test results prove that when you provide care, time and technology and have high expectations, the students are going to rise to the occasion."

Based on the pilot program's success, RISD and TI are expanding the intervention initiative during the 2006-2007 academic year to four additional junior high campuses. TI is taking part in intervention initiatives at three other school districts in Texas, Ohio and Florida.

*The results were reported by independent researchers from Winick & Lewis Research, LLC, and The University of Texas at Austin.

¹Source: Dallas Morning News, August 25, 2006 issue.