

## PROFILES IN SUCCESS

### Killeen ISD TEXAS

#### Strengthening Math Curriculum to Meet the Diverse Needs of All Students

With 47 percent of its population connected to the military, Killeen Independent School District (KISD) in Texas has the unique challenge of educating students with a diversity of primary languages, a wide range of socio-economic levels and a high mobility rate. With all of these factors, KISD looked to strengthen and support their math curriculum to meet the needs of all students, regardless of language level or confidence in math.

KISD first rolled out ST Math®, a visual learning program, in January 2013 at Willow Springs Elementary, intending to use the program to strengthen their Response to Intervention (RTI). But Assistant Superintendent Diana Miller says administrators began to shift their attention to strengthening the district's core curriculum. "What we identified with ST Math is that it is not just a remedial tool, but a support to the core curriculum," says Miller. "It helps students make connections and identify with the concepts in teacher lessons."

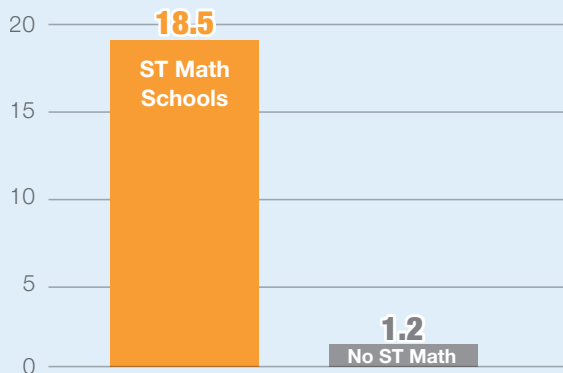


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- Diana Miller, Assistant Superintendent,  
Killeen Independent School District

#### Texas Shining STAAR

Growth in Percent of Students Grades 3-5\* Satisfactory or Advanced (2014 - 2016)



#### Demographic Breakdown

**School Enrollment:** 21,435

**African American:** 33.4%

**Caucasian:** 26.1%

**Hispanic:** 27.9%

**Other:** 10%

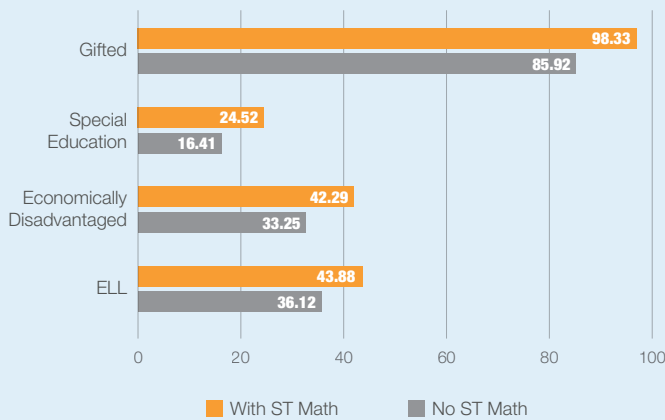
**Asian:** 2.6%

**FRL:** 57%

**Grades using ST Math:** PK-5

\* Avg. of 3,463 ST Math students compared to avg. of 3,300 students not using ST Math with similar baseline math performance.  
Note: Updated 9/2017 to include more eligible schools.

## Percent of Students in Grades 3-5 Satisfactory or Advanced (2015-2016)



## ST Math's Visual Approach Helps Students Become Creative Problem Solvers

After seeing triple-digit math gains in comparison to other Texas schools on STAAR (State of Texas Assessments of Academic Readiness) coming out of Willow Springs, KISD rolled out ST Math to all 32 of its elementary schools, with funding support from Toyota USA Foundation and Xerox. Educators across Killeen began seeing the benefits right away.

They found that ST Math provided rigorous math instruction without being intimidating. None of the puzzles involve verbal instructions; students must figure out how to get a penguin, JiJi, across the screen. "It's fun and it challenges their thinking," says Karen Hutchison, Director of Elementary Curriculum and Professional Development. "ST Math engages their minds and instantly provides an opportunity for them to be successful students."

Dr. Jennifer Warren, principal at Oveta Culp Hobby Elementary, values the creative problem solving that ST Math brings to the classroom. "Students are improving with their problem solving because just trying the same strategy over and over again won't work," she says. "They have to try so many different strategies and ways of approaching the problem to figure out how to get JiJi to move across the screen. It forces them to slow down and think critically."

She also mentions that ST Math's game-based approach makes rigorous math learning appealing to all students: "The fact that ST Math looks more like what they're accustomed to doing in their free time, such as playing a video game, that's an attractive aspect."

## STAAR Scores Soar Across All Student Groups

KISD's district-wide implementation of ST Math shows that the test results from Willow Springs were no exception. Educators found that the creative problem solving and increased student engagement they saw in the classrooms translated to a huge jump in STAAR scores. In just two years, Killeen's elementary students scoring Satisfactory or Advanced increased from 49.6% in 2014 to 68.1% in 2016.

The data was similarly impressive when broken down by subgroups. Compared to their counterparts without ST Math, 12.4% more of Killeen's gifted students were in the Satisfactory or Advanced range, and English learners (EL), economically disadvantaged and special education groups saw similar gains.

Along with outstanding test scores, Killeen continues to see engaged students rising to meet new challenges. Patricia Ferrell, a math instructional aide at Oveta, tells

the story of one fourth-grader who was among the first to finish his entire grade-level ST Math curriculum for two years straight. "He was eager to see what the next challenge was and to see if he could meet the challenge," she says. He was intrinsically motivated to keep going, even when he encountered challenges he had never seen before.

At Killeen, students are not the only ones taking large strides in their learning. Karen Hutchison, Director of Elementary Curriculum and Professional Development, says that teachers in her professional development sessions are benefiting from ST Math just as much as their students, learning new math concepts they can then reinforce in the classroom. "That's been a powerful side effect of implementing ST Math for our children, because our teachers are developing stronger mathematical skills."

