

PROFILES IN SUCCESS

Albemarle County PS VIRGINIA

Learning the Value of Productive Struggle

When Albemarle County Public Schools (ACPS) were searching for a technology-based software program to support its math curriculum, their primary goal was to deepen student learning. The district, nationally recognized for embracing innovative education technology, first introduced MIND Research Institute's ST Math in 2010 as a remediation resource for the county's Title 1 schools. Today, ACPS offers ST Math at 10 elementary schools, two middle schools and one alternative school, serving students who span a broad range of abilities and backgrounds.

"One aspect that we really like about ST Math was the non-linguistic approach," says Matt Bludin, ACPS' Lead Instructional Coach for Mathematics.

Since ST Math does not rely on language, Bludin felt the program made sense for this sprawling Virginia school district that encompasses suburbs to farmlands. "We have a rising population of students struggling with the English language and ST Math is a way for any child to be involved with learning math through understanding concepts and problem-solving."



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Students will work harder, much harder, at solving the problems with ST Math than they would with paper and pencil.

- Lisa Molinaro, Principal, Woodbrook Elementary School

Meeting English learners (EL) and Title I Students' Needs Visually

At Woodbrook Elementary School, a Title 1 school with a high EL population, ST Math has been a key component of math block instruction for four years, according to Principal Lisa Molinaro. And she believes ST Math is the reason she's seen an increase in her students' probability, statistics, and geometry skills over the last few years.

In fact, a broader analysis of Virginia Standards of Learning (VSOL) results shows that Albemarle schools using ST Math

for three years are outpacing the rest of the state in math achievement.

"The visual representation of mathematical processes forces students to think deeply about numbers and number sense," Molinaro says. "Students will work harder, much harder, at solving the problems with ST Math than they would with paper and pencil."

Albemarle Co. PS

VIRGINIA



District Facts

District Grade Levels: PK-12
Enrollment: 13,000
District Type: Large rural
Number of Schools in District: 27



Demographic Breakdown

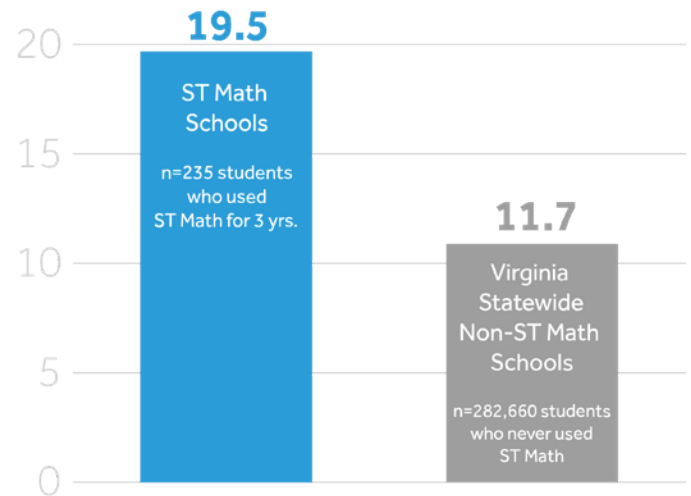
Caucasian: 66.4%
Hispanic: 11.7%
African American: 11.3%
Other: 10.6%
FRL: 28.8%



ST Math Implementation

Grades using ST Math: K-8
Type of ST Math instruction:
Classroom implementation

Growth in Percent of Students Grades 3-5 Passing or Advanced (2012-2015)*



*Virginia Standards of Learning (VSOL) for 2012-2015

High Achievers Benefit From Productive Struggle

The gifted and talented students at Virginia Murray Elementary also find themselves working harder at solving problems in ST Math – sometimes to their own chagrin.

“Because ST Math doesn’t give you directions, you have to be comfortable with failing as you struggle to figure things out,” says Mark Green, Principal of Virginia Murray, which has been using ST Math for three years. “High achievers sometimes find that challenging.”

A case in point, one gifted student, after encountering initial challenges, went so far as to describe JiJi, the animated penguin of the ST Math games, as his nemesis.

Green describes the student as not used to being wrong and having to overcome his fixed mindset and challenge himself to overcome his fear of making a mistake.

ST Math has put a spotlight on the value of productive struggle--the active and persistent method of learning through failure. “We see ST Math as a continuum resource for all students, including struggling learners as well as high achievers who are not used to struggling,” says Green. “The program helps us understand them better as learners. Not just in math, but overall.”

