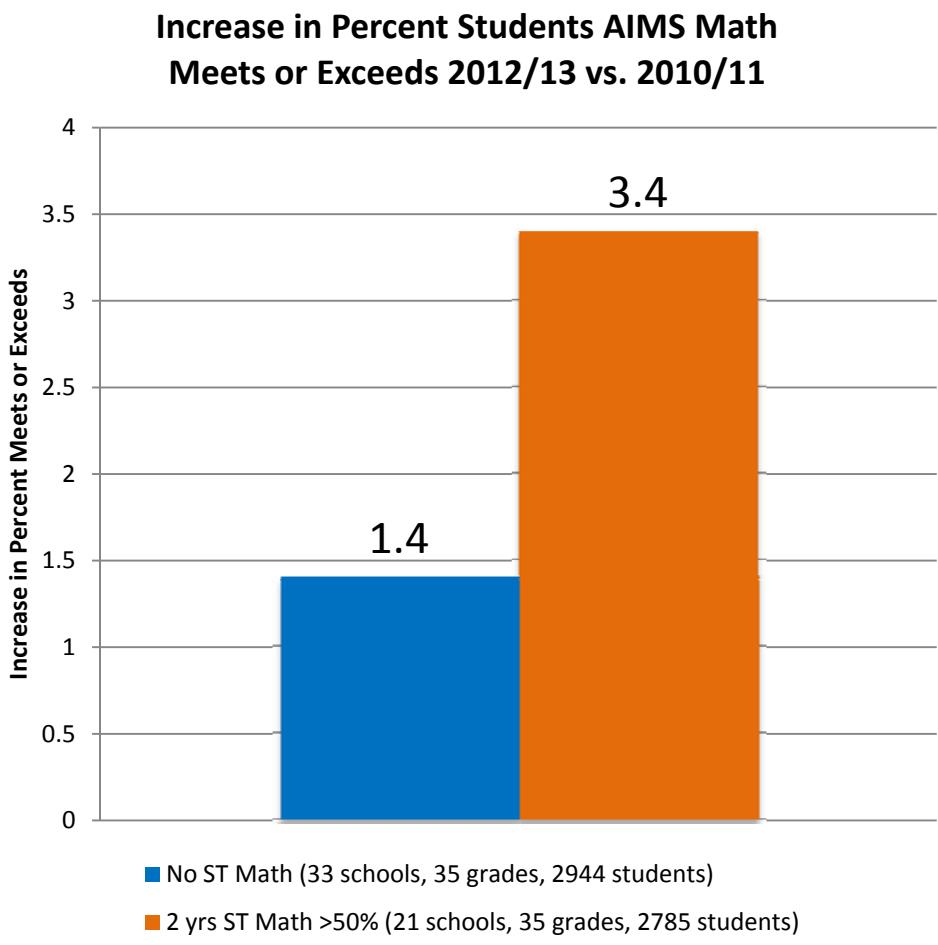


Arizona Schools 2 Years 2010/11 to 2012/13

Subjects: MIND Research Institute analyzed schools in Arizona for grade-average AIMS math achievement growth between the 2010/11 and 2012/13 school years. All grades 3,4, or 5 with ST Math usage in 2011/12 and 2012/13, and with average ST Math program content coverage of at least 50% and with at least 85% of their students enrolled in the ST Math program in 2012/13 were analyzed: altogether 35 grades with 2785 students at 33 schools. This Treatment group was matched to a similar Comparison group selected from all other Arizona schools, using a propensity scores matching algorithm. The Comparison group had never used the ST Math Program: 35 grades with 2944 students at 33 schools.



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Program: In each grade using the program, all students and teachers are licensed to participate. The ST Math ® program is based on supplemental math instructional software which covers math standards at each grade level. The software presents the mathematics as a year-long curriculum of interactive, animated visual diagrams, or puzzles, for the students to solve. The students use the self-starting, self-paced instructional software twice per week under the teacher's supervision. The teacher is trained to also use the software's visual representations of mathematics concepts during regular classroom lessons, to connect to conventional language-intensive math instruction.

Data Collection: The grade-average AIMS math achievement level distributions and student enrollment were collected from the Arizona Department of Education's website for each school and grade level for the years 2010/11 and 2012/13. Each year the data indicate the percentage of students at each grade at each school who tested into the 4 different levels of AIMS math achievement. The average MIND Research Institute ST Math program content coverage percentage and student enrollment in the ST Math software were collected from MIND's digital usage data for 2012/13.

Analysis Summary: Changes from 2010/11 to 2012/13 in the percent of students at the top 2 achievement levels, Meets or Exceeds, were evaluated for the Treatment group, and also for the Comparison group of schools. Grade-wise growth was evaluated (i.e. growth in same grade, same school, from 2010/11 to 2012/13) and then aggregated across schools and grades.

Results: The grades implementing ST Math on average grew 3.4 points in the percentage of students at Meets or Exceeds, as compared to 1.4 points for the matched comparison group ($p\text{-value}=0.43$).