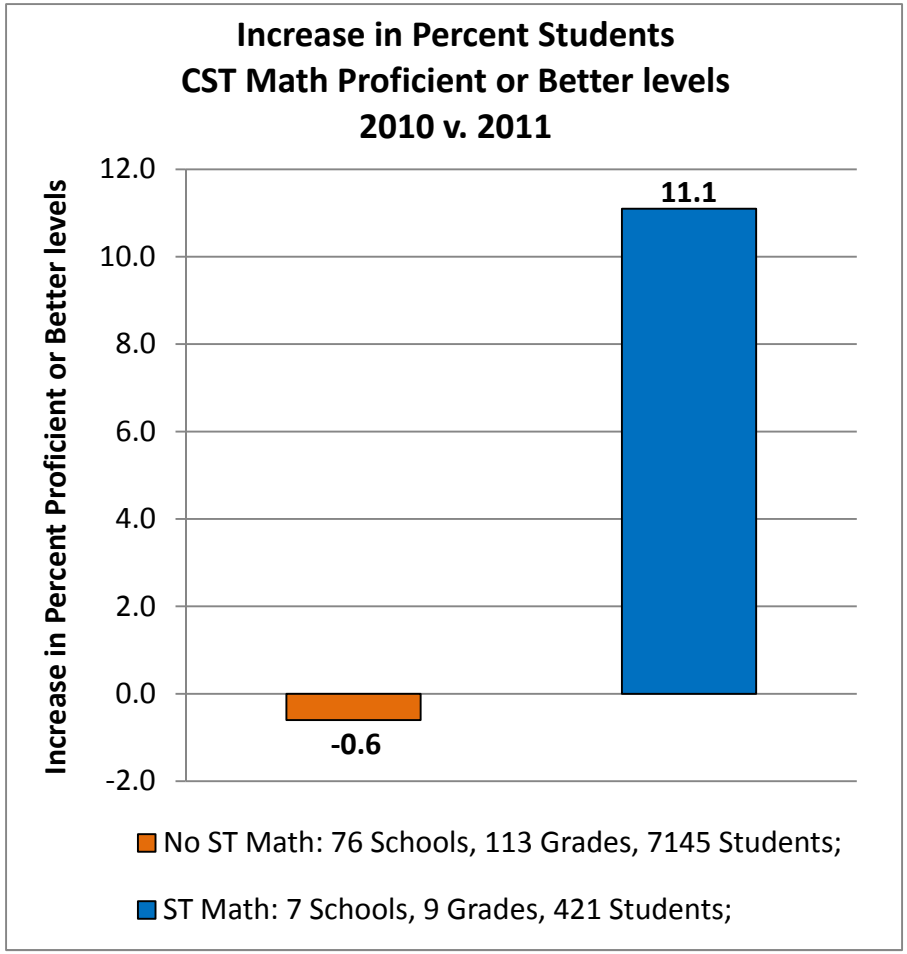
Napa Valley Math Initiative Cohort 2 Growth 2010-2011

MIND Research Institute

Subjects: MIND Research Institute analyzed Math Initiative schools in Napa Valley Unified for California Standards Test (CST) math proficiency growth in the 2010/11 school year. The Math Initiative, funded by local philanthropy, is designed to increase math achievement through deployment of a research-based math teaching and learning approach, implemented via student use of visual math instructional software. Eligible schools in Napa Valley were invited to a launch event in 2010 and applied for startup grants for two selected grade levels (e.g. grades 2 and 3). All Math Initiative schools in NVUSD which started the program in 2010/11 and enrolled 80% or more of their students and with an average progress of 50% or more in the program were analyzed. This report focuses on those 7 schools implementing the program at grade 2, 3, 4, and/or 5, with altogether 9 grades and 421 students using the program. The comparison set was chosen to be similarly performing schools either in Napa county or Sonoma county, in the bottom 30% of API performance, which did not participate: 76 schools, 113 grades, and 7,145 students.



Program: In each grade using the program, all students and teachers are licensed to participate. The ST Math ® program consists of supplemental math instructional software which covers California 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 the conventional language-intensive math instruction.

Data Collection: The average CST math achievement scale scores, proficiency levels distributions, and student enrollment, were collected for each grade level for the years 2009/10 and 2010/11 from the California Department of Education website. Each year the data indicate the percentage of students at each grade who tested into the 5 different levels of math achievement. The average MIND Research Institute program implementation percentage and student enrollment in the MIND software were collected from MIND's usage data.

Analysis Summary: Changes from 2009/10 to 2010/11 in the percent of students at the top 2 achievement levels, Proficient and Advanced, were evaluated for the ST Math group and also the comparison group of schools. A grade-wise growth comparison was evaluated (i.e. growth in same grade, same school, from 2009/10 school year to 2010/11 school year) and then aggregated across grades and schools.

Results: The grades implementing ST Math grew 11.1 points in the percentage of students Proficient or better, as compared to a decrease of -0.6 points for the comparison group (significant effect with p-value of 0.03).

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