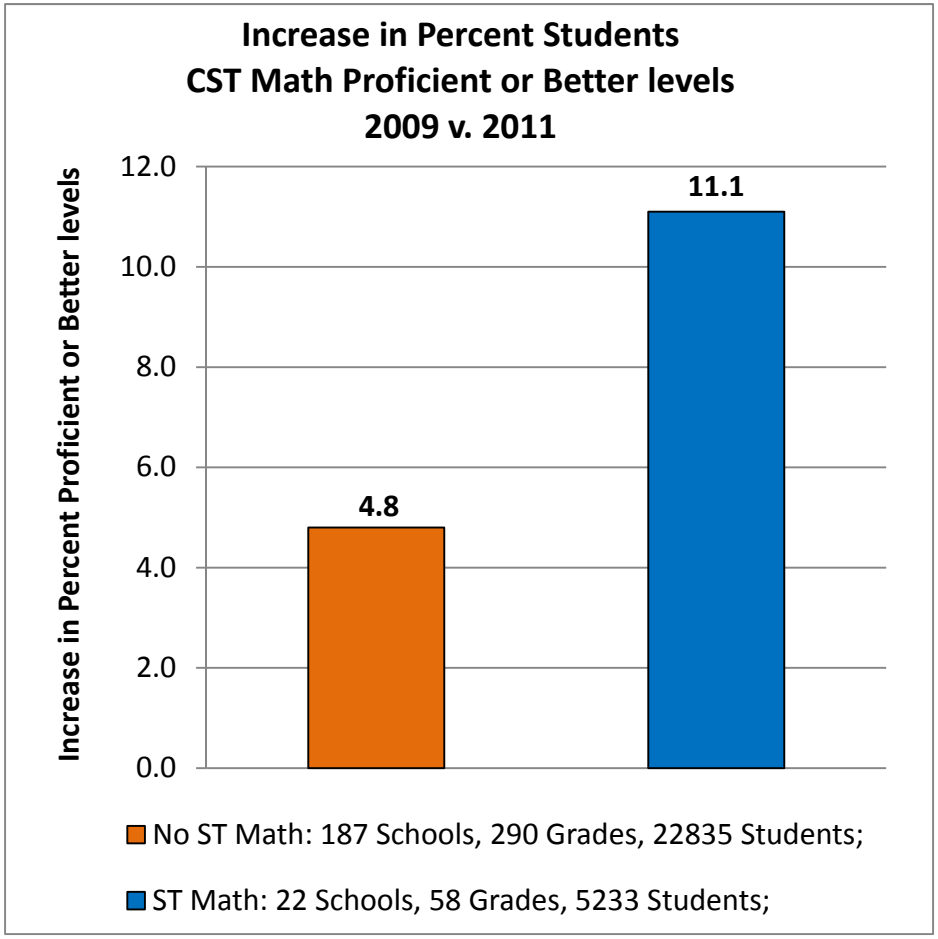
Orange County Math Initiative Cohort 2 Growth 2009-2011

MIND Research Institute

Subjects: MIND Research Institute analyzed schools in Orange County for California Standards Test (CST) math proficiency growth in the 2010/11 school year. Eligible schools from a list of the lowest 30% in CST math performance were invited to a launch event in 2009 and applied for startup grants for MIND's ST Math software. This Math Initiative is funded by local philanthropy, and is designed to increase math achievement at lower performing schools through deployment of a research-based math teaching and learning approach, implemented via student use of visual math instructional software. All Math Initiative schools in Orange County which implemented and continued using the program in both 2009/10 and 2010/11 were analyzed. This report focuses on 22 schools implementing the program at grade 2, 3, 4, and/or 5, with altogether 58 grades and 5233 students using the program. The comparison set was comparable performance schools by baseline 2008/09 CST math scores in San Diego County which did not use ST Math at all: 187 schools, 290 grades, 22835 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 since 2008/09 from the California Department of education website. Each year the data indicates 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: Growths from 2008/09 to 2010/11 in the percent students at the top two 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 the same grade, in the same school, from the 2008/09 school year to the 2010/11 school year) and then aggregated across grades and schools.

Results: The grades implementing ST Math grew 11.1 points over the two year period in percent students Proficient or better, as compared to an increase of 4.8 points for the comparison group (p-value<0.05).