

Subjects: MIND Research Institute analyzed schools in Clark County for math proficiency growth over two years, from the 2008/09 school year to 2010/11 school year. The Math Initiative, funded by local philanthropy, 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. Schools from an eligibility list of the lowest 30% of Nevada math performance were invited to a launch event in 2009 and applied for startup grants for two selected grade levels (e.g. grades 3 and 4). All Math Initiative schools in Clark County Cohort 1 which implemented and continued using the program in both 2009/10 and 2010/11 were analyzed. This report focuses on those 7 schools implementing the program at grade 3 and/or 4, with altogether 11 grades and 1,165 students using the program. The comparison set was chosen to be similarly performing schools in Clark County, also in the bottom 30% of statewide math performance, which did not participate: 25 schools, 50 grades, and 5,474 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 Nevada 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 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 CRT math achievement proficiency levels distributions, and student enrollment, were collected for each grade level for the years 2008/09 through 2010/11 from the Nevada Department of Education website. In each year, the data indicate the percentage of students at each grade who tested into the 4 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 2008/09 to 2010/11 in the percent of students at the top 2 achievement levels, Met and Exceeded Standards, were evaluated for the ST Math group and also the comparison group. A grade-wise growth comparison was evaluated (i.e. two years growth in same grade, same school, from 2008/09 school year to 2010/11 school year) and then aggregated across grades and schools.

Results: The grades implementing ST Math grew 13.7 points in the percentage Met/Exceeded Standards, as compared to an increase of 6.6 points for the comparison group (with significant $p < 0.10$).

