Colorado Springs School District 11 Analysis 2011/12

MIND Research Institute

Subjects: MIND Research Institute analyzed schools in Colorado Springs School District 11 for Transitional Colorado Assessment Program (TCAP) math proficiency growth from the 2010/11 school year to the 2011/12 school year. All the Colorado Springs elementary schools which deployed MIND's research-based math teaching and learning approach, implemented via student use of visual math instructional software, were analyzed. This report focuses on 35 schools implementing the program, at grades 3, 4, and/or 5, with altogether 105 grades and 1264 students using the program for the first year. The comparison group was all elementary schools not participating in ST Math in the state: 913 schools, 2633 Grades, and 179,052 students.

Increase in Percent Students TCAP Math Proficient or Advanced Level 2011/12 vs. 2010/11



ST Math (35 schools, 105 grades, 1264 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 Colorado 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 grade-average math proficiency levels distributions in the Colorado Students Assessment Program (CSAP) in 2010/11, the TCAP in 2011/12, and student enrollment, were collected for each grade level from the Colorado Department of Education. In each year the available data indicate the percentage of students at each grade who tested into the 4 different levels of math achievement. The MIND Research Institute program student enrollment in MIND's software was collected from MIND's usage data.

Analysis Summary: Considering that the TCAP and CSAP results reported on the Colorado state website are comparable, changes from 2010/11 to 2011/12 in the percentage of students at the top 2 achievement levels, Proficient and Advanced, were evaluated for the ST Math group and also for the comparison group. A grade-wise growth comparison was evaluated (i.e. growth in same grade, same school, from 2010/11 to 2011/12) and then aggregated across schools and grade levels.

Results: The grades implementing ST Math grew 3.2 points in the percentage at Proficient and Advanced level, as compared to a decrease of 0.1 point for the comparison group. The difference is statistically significant with a p-value less than 0.05.