## MIND Research Institute

Subjects: MIND Research Institute analyzed schools in Minneapolis Public Schools (MPS) for grade-average Minnesota Comprehensive Assessment (MCA) achievement level growth between the 2011/12 and 2013/14 school years. All MPS grades 3, 4, or 5 using ST Math in both 2012/13 and 2013/14, and with average 2013/14 ST Math program content coverage of at least $50 \%$ and ST Math grade-level enrollment of at least $85 \%$ were analyzed: altogether 24 grades with 1591 students at 15 schools. The Comparison group is randomly matched from across Minnesota to be similar in 2011/12 math performance but to have never used the ST Math Program: 72 grades with 5199 students at 68 schools.

Increase in Percent Students MCA Math Meets or Exceeds Standards 2013/14 vs. 2011/12


Program: In each grade using the program, all students and teachers are licensed to participate. The ST Math ${ }^{\circledR}$ 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 MCA math proficiency level distributions, and student testing counts were downloaded from the Minnesota Department of Education website for each school and grade level for the years 2011/12 through 2013/14. Each year the data indicate the percentage of students at each grade at each school who tested into the 4 different levels of MCA math proficiency (Meets and Exceeds Standards being the highest). 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 and 2013/14.
Analysis Summary: Changes from 2011/12 to 2013/14 in the percent of students at the top 2 achievement levels, Meets or Exceeds, were evaluated for the ST Math group, and also for the Comparison group of schools. Grade-wise growth was evaluated (i.e. growth in same grade, same school, from 2011/12 to 2013/14) and then aggregated across schools and grades.

Results: The grades implementing ST Math on average grew 10.7 points in the percentage of students at Proficient or Advanced, as compared to a drop of 1.1 points for the Comparison group ( $p$-value $<.01$ ).

