## MIND Research Institute

Subjects: MIND Research Institute analyzed schools in District of Columbia Public Schools (DCPS) for grade-average DC-CAS math achievement growth between the 2011/12 and 2012/13 school years. All grades 3,4, or 5 with ST Math usage in 2012/13, with average ST Math program content coverage of at least $50 \%$, and with at least $85 \%$ of their students enrolled in the ST Math program were analyzed: altogether 21 grades at 11 schools, and 752 students using the program. A ceiling of $55 \%$ Proficient or Advanced DC-CAS performance in the baseline year of 2011/12 was used for the entire dataset. The comparison group used was all the other grades in DCPS which did not use the ST Math program at all in 2012/13: 40 schools, 90 grades, and 2,668 students.

Increase in Percent Students DC-CAS Math Proficient or Advanced 2012/13 vs. 2011/12


Program: In each grade using the program, all students and teachers are licensed to participate. The ST Math ${ }^{\circledR}$ program consists of 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 the conventional languageintensive math instruction.

Data Collection: The grade-average DC-CAS math achievement level distributions and student enrollment (number tested) were received for each school and grade level for the years 2011/12 and 2012/13 from DCPS. Each year the data indicated the percentage of students at each grade at each school who tested into the 4 different levels of DC-CAS math achievement. The average MIND Research Institute ST Math program content coverage percentage and student enrollment in the MIND software, were collected from MIND's digital usage data for 2012/13.
Analysis Summary: Changes from 2011/12 to 2012/13 in the percent of students at the top 2 achievement levels, Proficient and Advanced, were evaluated for the ST Math group and also for the comparison group of schools. A grade-wise growth comparison was evaluated (i.e. growth in same grade, same school, from 2011/12 to 2012/13) and then aggregated across schools and grades.
Results: The grades implementing ST Math on average grew 17.4 points in the percentage of Proficient or Advanced students, as compared to an average increase of 4.5 points for the comparison group ( $p$-value $<.01$ ).

