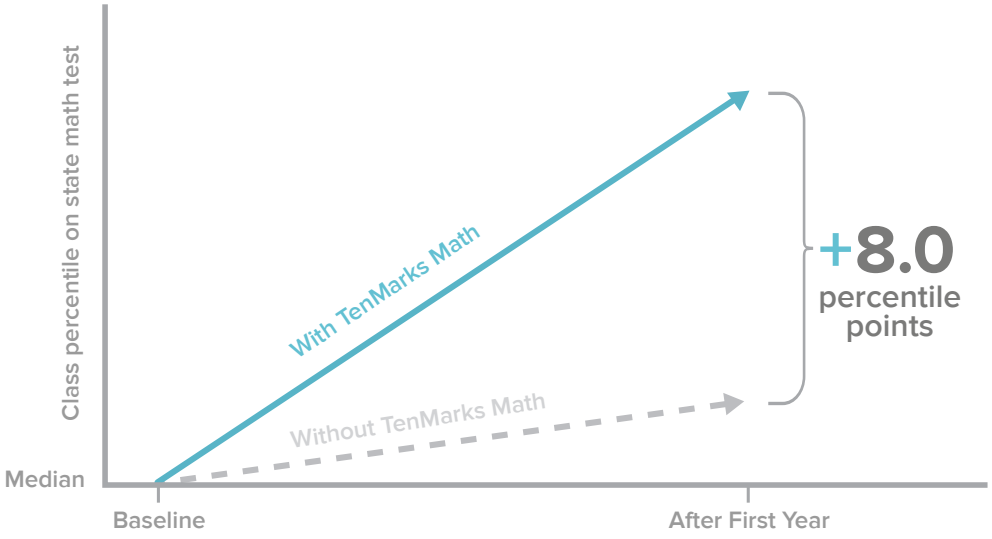
TENMARKS
an amazon company

American Institutes for Research Finds Scores Improve with TenMarks Math

American Institutes for Research (AIR) recently released the final report from their independent evaluation of TenMarks Math. The study's findings suggest that TenMarks Math improved average math performance by 8 percentile points on state tests—from the 50th to the 58th percentile in the state—in classes that completed at least one assignment per week during the school year. The findings are based on a large, diverse sample of TenMarks Math implementations in grades 3 through 8 across 153 districts and 10 states. The study was designed by AIR to meet the highest possible rating for a quasi-experimental research design according to the What Works Clearinghouse (WWC) standards.

Estimated Impact of TenMarks Math in First Year



Impact of TenMarks Math The graph represents the estimated impact on achievement implied for a class at the 50th percentile of performance on a state's end-of-year assessment. The impact estimate is based on AIR's statistical analysis of test-score trends between classes that completed at least one assignment per week on TenMarks Math for a single school year and a matched set of comparison classes that did not have access to the program. Consistent with the the study's research design, the impact found by AIR is represented in the graph as the difference between the trajectories of the TenMarks Math and comparison groups.

For more information go to www.tenmarks.com

"This change implies that a class at the 50th percentile in the state would be at approximately the 58th percentile if it systematically used TenMarks Math during the year."

American Institutes for Research: *The Effect of TenMarks Math on Student Achievement*, August 2017

153
Districts

584
Schools

1,316
Classes

56%
Schoolwide Title I

32%
Urban

TenMarks Math Implementations in the Study

TENMARKS
an amazon company

What is the purpose of the study?
American Institutes for Research (AIR) conducted an independent impact evaluation of TenMarks Math. The purpose of the study is to assess the evidence basis for TenMarks Math — that is, the extent to which the TenMarks Math program improves student achievement in mathematics.

What are the main findings of the study?
The study finds that classes that completed at least one assignment per week in TenMarks Math during a single school year outperformed a matched comparison group by an average of 0.19 standard deviations on the end-of-year state assessment. The additional gains associated with TenMarks Math are statistically significant and are equivalent to improving math performance from the 50th to the 58th percentile of classes in the state.

Do these results reflect the recommended levels of usage of TenMarks Math?
These results reflect the impact of TenMarks Math in classes that completed at least one assignment per week during the school year. The recommended level of usage is three assignments per week. Though it is reasonable to assume that more usage is associated with greater impact, the study does not address this question.

Do these results reflect the level of teacher experience with TenMarks Math?
These results reflects the impact of TenMarks Math in the first year a class uses the program. Among classes with two years of access to TenMarks Math, the report finds a similar level of impact in the first and second year.

What grade levels are included in the study?
The study includes classes in 3rd through 8th grades. These are the most commonly tested grades in most states. Approximately 78% of the classes in the study sample were in grades 3, 4, and 5.

How big is the study sample?
The study includes a sample of over 2,600 classes, half of which were in the TenMarks Math group and half of which were in a matched comparison group that didn't have access to TenMarks Math. AIR defines a class as all the students in a grade level in a particular school.

Do the study's findings apply to schools and districts like mine?
The study's findings are based a diverse sample of TenMarks Math implementations, which helps ensure the findings generalize to as many different school and district contexts as possible. For example, the study includes implementations in 153 districts across 10 states; in urban, suburban, and rural settings; in affluent and under-resourced schools; and in schools with a wide range of student demographics.

How is student achievement measured?
The study measures student achievement as the percentage of students in each class meeting proficiency on the state end-of-year mathematics tests: both the SBAC and PARCC Common Core assessments and state-specific tests including the Florida FSA, Louisiana LEAP, North Carolina End-of-Grade tests, Ohio OST, and Virginia SOL.

How rigorous is the study?
The study was designed by AIR to meet the What Works Clearinghouse (WWC) Group Design Standards with Reservations, the highest possible rating for a quasi-experimental design. In order to meet this standard, the analysis uses a comparative interrupted time-series (CITS) research design that compares the differential change in achievement from the baseline to the follow-up period between TenMarks Math classes and a matched set of comparison classes. AIR cites a number of published studies that demonstrate "CITS designs can produce treatment effect estimates equivalent to randomized controlled trials and regression discontinuity designs."

For more information go to www.tenmarks.com