

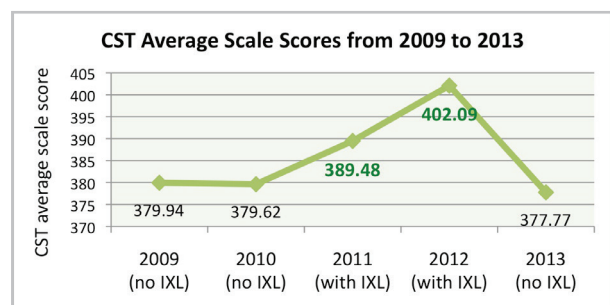
Improving Outcomes in a 4th Grade Before-School Math Lab



Over the course of two years using IXL in a math lab, students showed a 23 point increase on the math portion of the California Standardized Test.

In a study conducted by Donawerth (2013), 4th graders using IXL Math in a before-school math lab demonstrated significant gains on the math portion of the California Standardized Test (CST). The math lab was implemented at San Joaquin Elementary School in California as part of a school turnaround program paid for with Title I funds. The program, which ran from January through April in both 2011 and 2012, was targeted to 4th grade students who had not yet successfully passed the district's math benchmark test for multiplication. Students were allowed to work independently on IXL Math for up to 30 minutes prior to the start of school each day, with a focus on multiplication facts. Students continued to work on IXL until they were able to achieve a 90 percent or higher score on the district benchmark test for multiplication.

Donawerth examined the impact of the program by analyzing test results of student cohorts for the two years before the implementation of the lab, the two years during which the lab was in place, and one year after the lab was discontinued. The researcher analyzed three different conditions among the cohorts: students who had access to a Title I teacher without the math lab (2010 cohort), students who had access to the math lab without a Title I teacher (2011 and 2012 cohorts), and students who had access to neither (2009 and 2013 cohorts). In 2011, when the math lab was put in place, there was a 10 point increase on the math portion of the CST compared to 2010 scores. In 2012, CST results went up another 13 points, for a total increase of 23 points compared to pre-math lab results. In 2013, when the math lab was discontinued, the school saw a 24 point drop on 4th grade CST scores in math.



These results demonstrate a dramatic and statistically significant positive change correlated to the use of IXL Math in the before-school math lab. The researcher concluded, "this data showed the clearest evidence that students scored significantly higher when the lab was available to them." As IXL Math was the only intervention provided during the math lab, the study provides strong evidence that IXL Math has a positive impact on standardized test scores, even when used for a limited time.

Reference

Donawerth, A. N. (2013). *Bridging the Gap: Fourth Grade Before-School Computer Math Lab and Its Impact on California Standardized Test Scores* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses database. (Accession No. UMI 1586255)