dreambox® MATH
By Discovery Education

What Matters is What Works

Research from More than 100,000 Students Shows DreamBox Math Works

Millions of Data Points X 100,000+ Students = 7 Key Research Takeaways

By personalizing instruction, DreamBox Math ensures that all students can achieve significant growth in math. We've got the research to prove it.

About DreamBox Math

DreamBox Math uses Intelligent Adaptive Learning technology to analyze data about student behavior within the platform. The program can deliver millions of individualized learning paths to tailor every math lesson to meet each student's unique needs. As learners work through the program, the software adapts the level of difficulty, scaffolding, sequencing, number of hints, and pacing in real time. This personalized experience ensures that students at all levels can continually work in the optimal learning zone and progress at the right pace.

Research Background

Over the past several years, Discovery Education has partnered with third-party research organizations, expert data scientists, and education researchers to analyze the efficacy of DreamBox Math across over 100,000 K–8 students. The rich data set includes students using DreamBox Math in class, at home, during accelerated programs, for intervention, and for practice.

Researchers applied a variety of methodologies to explore diverse data for students from different-sized districts, in unique parts of the nation, and facing varying learning challenges. Regardless of how researchers explored data, they found all types of students' math proficiency grew with DreamBox Math.

About this Data
To illustrate the range of research methods and data sets for the five studies highlighted in this brief, please refer to the table at the end of this document for background information for each outcome.

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Learn more about DreamBox Math efficacy at:
discoveryeducation.com/solutions/math/dreambox-math

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DreamBox Math meets all learners where they are and personalizes instruction to optimize each student's learning path.

DreamBox Math is proven effective for students who are performing below grade level and need extra attention and intervention efforts to catch up. Due to the personalized nature of the program, researchers have also found that the program is effective for students performing at or above grade level.

The following research conducted in one large Florida district suggests that DreamBox Math can be used as a program to support both intervention and enrichment.

INSTRUCTURE
LEVEL 3 ESSA
2024

Results

Students in both the lowest- and highest-achieving percentile groups experienced a significant improvement from completing an average of five or more lessons per week over eight weeks.

MAP Percentile Increase by Start-of-Semester Achievement Percentile

Moving Students Out of the Lowest Percentile (1-20%)

Maintaining High Achievement for Students in the Top Percentiles (81%-99%)
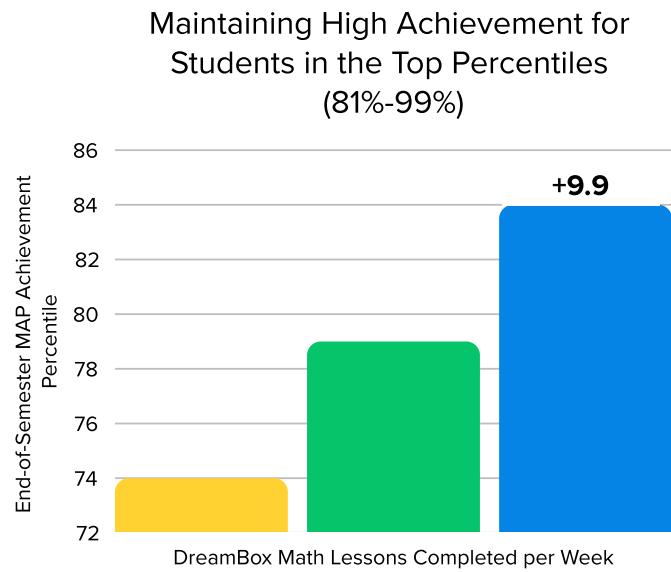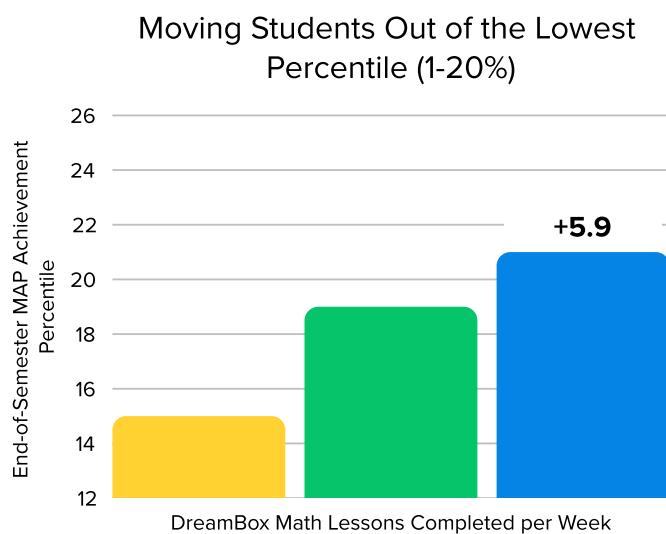
■ <2 Completed Lessons per Week   ■ 2+ to <5 Completed Lessons per Week   ■ 5+ Completed Lessons per Week

Students in the top achievement percentile who used DreamBox Math for the recommended amount of time (five-plus lessons per week) achieved significant growth of 9.9+ points.

DreamBox Math works for students in every grade level, even middle school.

Whether students are just starting their math journey by learning to count to ten or exploring concepts related to the Pythagorean theorem, DreamBox Math has been proven to have a positive impact on learners in all grades. As previous data has indicated, DreamBox Math can help students in elementary school meet and exceed math learning goals, and the same is true for students in middle school.

No matter what skills students are practicing or new concepts they are learning, DreamBox Math meets them where they are and provides the right instruction to help math make sense in a meaningful way.

Large District in Arizona

Data Sample
- 4,034 7-8 Students
  - 2,450 DreamBox Math users
  - 1,584 DreamBox Math non-users

Results

Students in all grades who used DreamBox Math weekly more during the academic school year saw more growth on end-of-year assessments. This was true for grades K–6 and grades 7–8. Research shows that middle school students (grades 7–8) who used DreamBox Math scored statistically significantly higher on the end-of-year Math Inventory.™ This analysis matched users and non-users.

Differences in EOY Math Assessment Outcomes for 7-8 Grade DreamBox Math Users and Non-users

Y-axis: Marginal Means for Math Inventory Quantiles®

- DreamBox Math Non-Users: 896
- DreamBox Math Users: 914
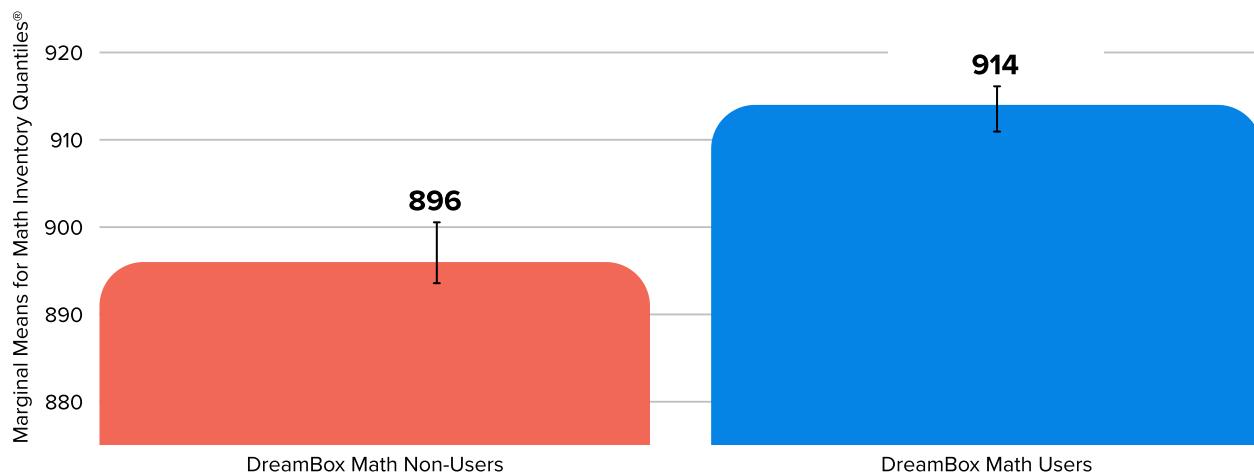
Middle school students who completed at least 4.2 DreamBox Math lessons per week scored 18 points higher on EOY assessments than students who didn't use the program at all.

Data shows that historically underserved students using DreamBox Math demonstrate the same level of growth as other student populations.

The latest NAEP data shows that math proficiency is down for 4th and 8th graders in every state and demographic. In 2019 and 2022, African American, Hispanic, and Native American students demonstrated the lowest scores, reflecting the high concentration of students of color in under-resourced schools.

A third-party study conducted across eight elementary schools in a small Pennsylvania district examined data from a historically vulnerable student population. Researchers learned that one hour of DreamBox Math usage per week correlated to higher end-of-year assessment scores regardless of demographics and free and reduced lunch (FRL) status.

*Small District in Pennsylvania*

Data Sample
- A total sample of 1,851 K–6 students
- 1,831 Students in the sample qualify for FRL (98.9%)
- 88.8% African American students

Results

Historically underserved students who use DreamBox Math the recommended weekly amount (five lessons), show significant academic gains compared to students who didn't use the program.

Relationship between Average Weekly Lessons and Student Math Outcomes on EOY Math Assessment
(in terms of Hedge's g effect sizes)

	Hedge's g Effect Size
Average Elementary Intervention	0.07
Moderate Weekly Lessons	0.20
High Weekly Lessons	0.29
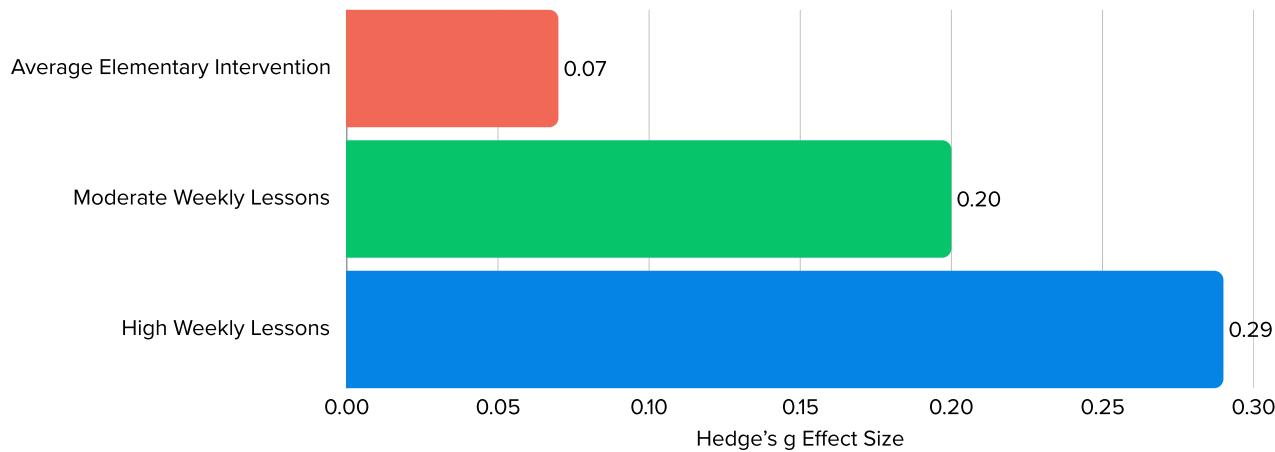
The above graph displays results for all students, a population comprised of nearly all FRL and African American students. This data shows that students who completed more weekly lessons had higher end-of-year math achievement than those who didn't use the program as frequently.

Students who use DreamBox Math see positive gains regardless of starting achievement level, compared to non-users.

DreamBox Math isn't just another digital tool, it's a proven way to boost achievement, build confidence, and make math engaging. When students are curious, challenged, and supported at just the right level, they demonstrate positive gains.

DreamBox Math's adaptive lessons, continuous feedback, and just-right challenges help students build stronger math skills over time. Researchers even noted that several results reached a "large" effect size by research standards — a strong indicator of real impact in the classroom.

Large District in North Carolina

Data Sample
- 100+ Schools in 1 North Carolina district
- 50,000+ K-5 Students who completed:
  - Fall 2022 NWEA MAP (G1-5)
  - Winter 2023 NWEA MAP (K)
  - Spring 2023 NWEA MAP (G1-5)

Results

DreamBox Math usage had a positive impact on NWEA MAP. These positive findings hold across subgroups of interest as well as across grade levels and achievement levels.

NWEA MAP Achievement Percentiles
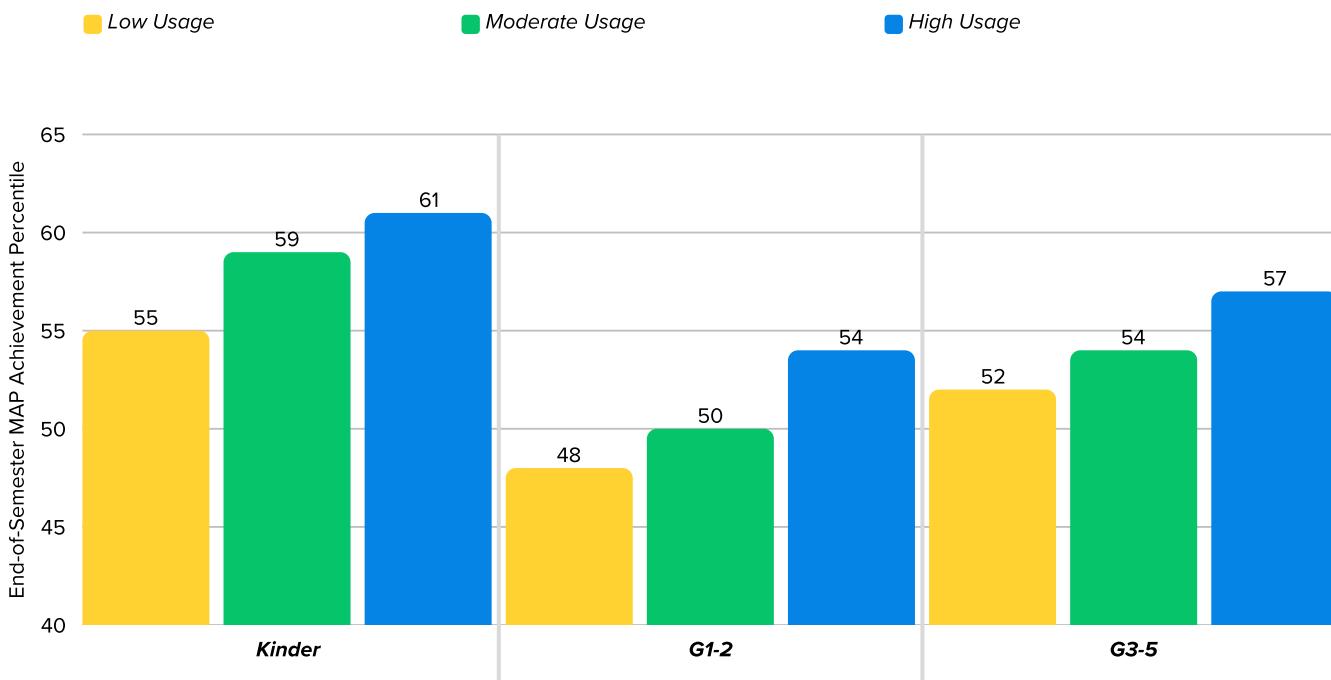
Legend: Low Usage (yellow), Moderate Usage (green), High Usage (blue)

Y-axis: End-of-Semester MAP Achievement Percentile

Grade	Low Usage	Moderate Usage	High Usage
Kinder	55	59	61
G1-2	48	50	54
G3-5	52	54	57

Data shows that DreamBox Math usage has a positive impact on assessments for Students with Economic Disadvantages (SED).

In California, one large district wanted to see if DreamBox Math could make a difference for students from economically disadvantaged backgrounds. The data revealed that when students consistently engaged with the program, they outperformed their peers on the NWEA MAP assessment. The takeaway: personalized learning can open doors for every student, helping to level the playing field and build lasting confidence in math.

INSTRUCTURE LEVEL 3 ESSA 2025

Large District in California

Data Sample
- 8,393 K–8 Students
- 42 Schools
- 76% of Students had economic disadvantages (SED)

Results

Students who used DreamBox Math at either moderate or high frequency both had significantly higher assessment scores than those with low usage. Among K-5 Students with Economic Disadvantages (SED), the number of completed lessons in DreamBox Math was positively associated with NWEA MAP percentile scores.

4 Percentile Point Difference!

SED Grades K-2 (n = 2,213)

NWEA MAP Math Percentile Point Estimates

Average Lessons per Week	Value
0	34
2	35
5	38

SED Grades 3-5 (n = 2,363)

NWEA MAP Math Percentile Point Estimates

Average Lessons per Week	Value
0	36
2	37
5	40
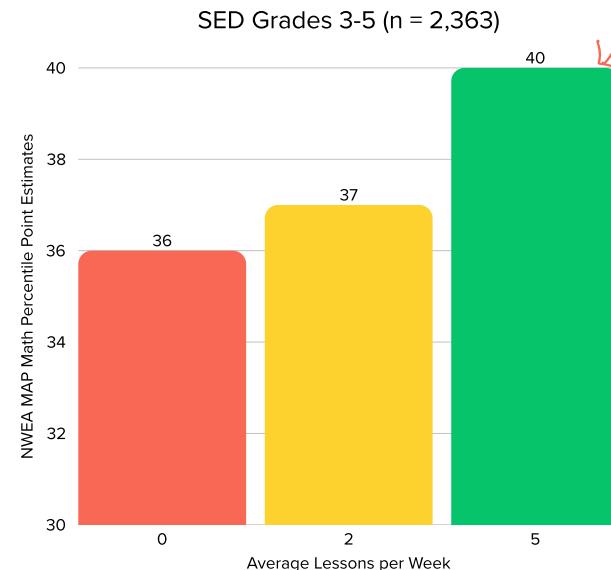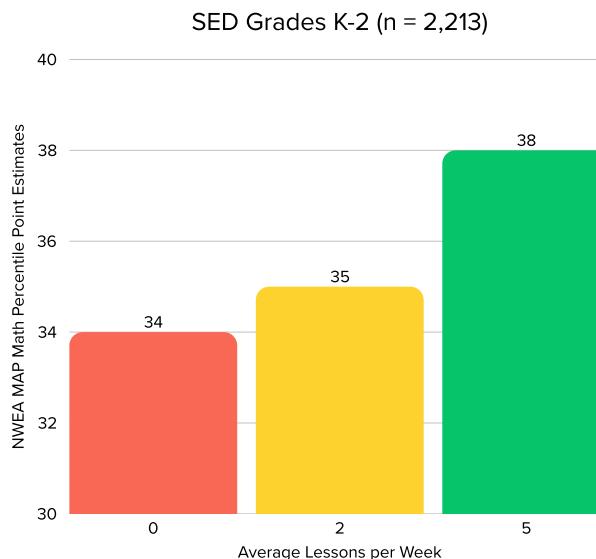
English language learners benefit significantly from DreamBox Math's unique approach.

The National Education Association estimates one out of four students in classrooms across the United States is an English language learner (ELL). Results from this California district showed that DreamBox Math had a positive impact for ELLs (over 27% of students within their dataset).

Students using DreamBox Math can access lessons in both English and Spanish. The lessons were built from the ground up with specific text and audio that ensure content and instruction are culturally appropriate for Spanish-speaking students. This unique approach hinges on the concept that students benefit when classroom instruction allows bilingual students to choose the language they prefer for arithmetic computation.

Medium District in California

Data Sample
- 6,462 Students in grades 1–8 who completed both the STAR Math test in fall 2021 and spring 2022
- 27% of Students are ELL

Results

English language learners achieved more growth when completing five or more DreamBox lessons per week than students who completed fewer lessons.

Percentile Increase for ELL Students Using DreamBox Math
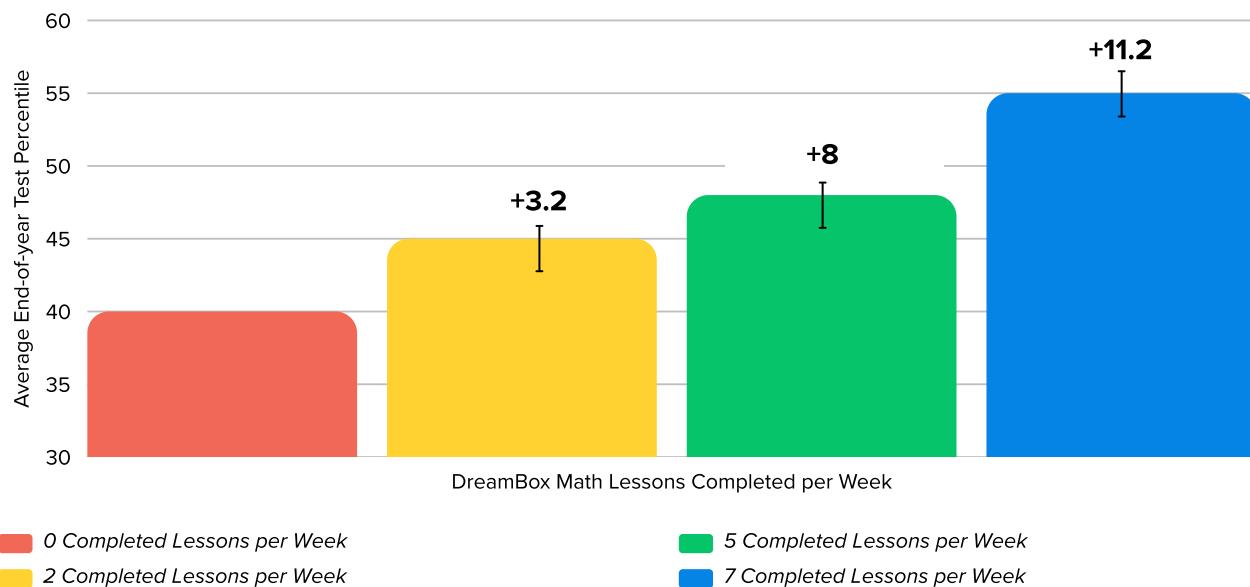
Average End-of-year Test Percentile vs. DreamBox Math Lessons Completed per Week

- **+3.2**
- **+8**
- **+11.2**

Legend:
- 0 Completed Lessons per Week
- 2 Completed Lessons per Week
- 5 Completed Lessons per Week
- 7 Completed Lessons per Week

ELL students who completed five DreamBox Math lessons per week scored 8 percentile points higher than ELL students who didn't use the program.

DreamBox Math Has a <mark>Lasting Impact</mark> on Student Success.

All students deserve meaningful, effective, and targeted math instruction. Personalizing instruction ensures that students across the nation, and within Texas, can achieve significant growth in DreamBox Math.

Research Sample	Validation	Key Findings
Large Florida District 22,380 Students in 1-5 63 Schools	INSTRUCTURE LEVEL 3 ESSA 2024	• Students within **both the lowest- and highest-achieving percentile groups experienced a significant improvement** from completing an average of 5+ lessons per week over eight weeks. • Students in the top achievement percentile who used DreamBox Math for the recommended amount of time achieved **significant growth of 9.9+** points on NWEA MAP end-of-semester assessment.
Large Arizona District 13,589 Students in K-8 30 Schools	INSTRUCTURE LEVEL 2 ESSA 2023	• K-8 Students who completed more DreamBox Math lessons per week had **higher achievement on their end-of-year math assessments** compared to students who completed fewer weekly lessons. • ELL students with greater DreamBox Math usage had **higher spring math assessment scores** than peers in the same subgroups.
Small Pennsylvania District 1,851 Students in K-6 8 Schools	INSTRUCTURE LEVEL 3 ESSA 2023	• Results suggest that **DreamBox Math is 4x more effective than the average elementary school math intervention.** • Across all grades, students who completed more DreamBox Math weekly lessons had **higher spring Savvas MSDA achievement scores**.
Large North Carolina District 50,000+ Students in K-5 161 Schools	INSTRUCTURE LEVEL 3 ESSA 2023	• Data indicates that DreamBox Math usage results in **positive gains**. • Students in K-5 with moderate and high usage of DreamBox Math (2 or more lessons weekly) **scored significantly higher on the NWEA MAP** than students with low usage (less than 2 lessons).
Large District in California 8,393 Students in K-8 42 Schools	INSTRUCTURE LEVEL 3 ESSA 2025	• Students who completed as few as two DreamBox Math lessons per week **scored significantly higher (4 points) on assessments than peers with lower usage. Data shows impact growing even more (7-10 points) at higher usage levels**. • Among K-5 Students with Economic Disadvantages (SED), ELL students, and Hispanic students the **number of completed lessons in DreamBox Math was positively associated with NWEA MAP percentile scores**.
Medium California District 6,462 Students in 1-8 22 Schools	Internal Research	• ELL students who completed five DreamBox Math lessons per week scored **8 percentile points higher than ELL students who didn't use the program.**