RESEARCH BRIEF

DreamBox Math Drives Higher Achievement for K-5 Students in Large NC District

Data indicates that DreamBox Math usage results in positive gains regardless of grade, race, gender, and starting achievement level.

Study Background

In 2023, Discovery Education partnered with LearnPlatform, a third-party edtech research company, to explore the impact of DreamBox Math on student achievement in a large North Carolina school district.

This correlational study focused on a large population of 50,000+ K-5 students across 160+ schools to examine the relationship between DreamBox Math usage and student outcomes in statewide math assessments. The hypothesis was that measurable student growth could be achieved with the differentiation, scaffolding, and continuous formative assessments built into DreamBox Math.

LearnPlatform designed the study to satisfy Level III requirements (Promising Evidence) according to the Every Student Succeeds Act (ESSA).

Researchers used three measures:

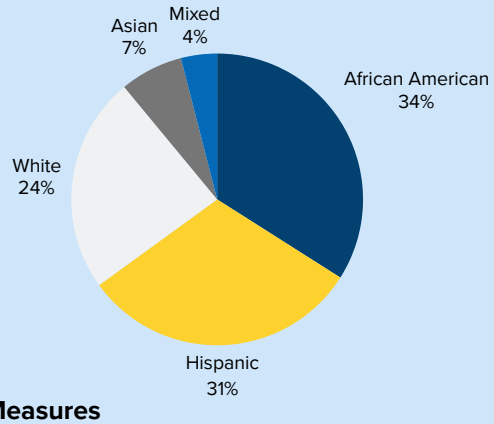
- NWEA MAP® math percentile scores for K-5
- End-of-Grade (EOG) assessment scores for G4-5
- DreamBox Math usage for the 2022-2023 school year (weekly lessons and weekly time)

Using these measures, researchers asked:

- What was the overall impact of DreamBox Math usage on NWEA MAP® scores and end-of-grade (EOG) state assessment math scores?
- Do findings hold across subgroups of students as well as grade levels and achievement levels?
- Among DreamBox Math users, what were the usage patterns?

Research Sample Data

- 161 Schools in 1 North Carolina district
- 50,000+ K-5 Students*



Measures

- Students in grades K-5 who completed:
  - Fall 2022 NWEA MAP (G1-5)
  - Winter 2023 NWEA MAP (Kinder)
  - Spring 2023 NWEA MAP (G1-5)
  - Spring 2022 and 2023 NC EOG Math Assessments (G4-5)

- DreamBox Math Usage Groups:
  - Low usage = ≤ 2 weekly lessons (≤ 30 minutes weekly)
  - Moderate usage = ≤ 2 to ≤ 5 weekly lessons (< 30 to < 60 minutes weekly)
  - High usage = > 5 weekly lessons (> 60 minutes weekly)

**While the full report includes G6-8, the findings are for K-5 since the main implementation was for these grades. Findings for G6-8 are in Appendix E of the full report.*

Read the full report from LearnPlatform to discover more findings:
DiscoveryEducation.com/Higher-Math-Achievement-NC

1.800.323.9084
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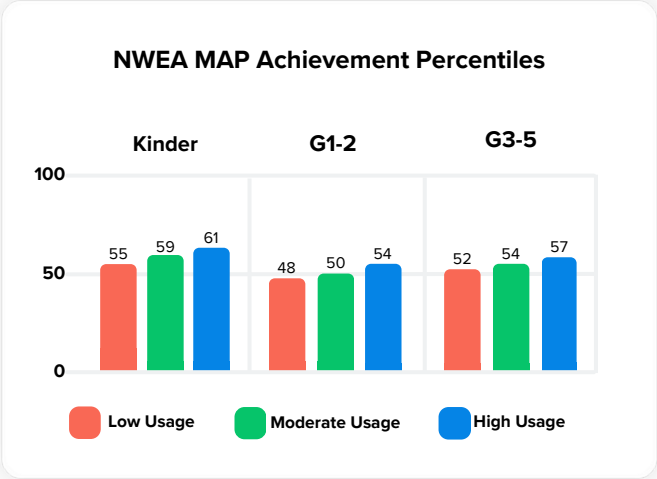
Key Takeaways

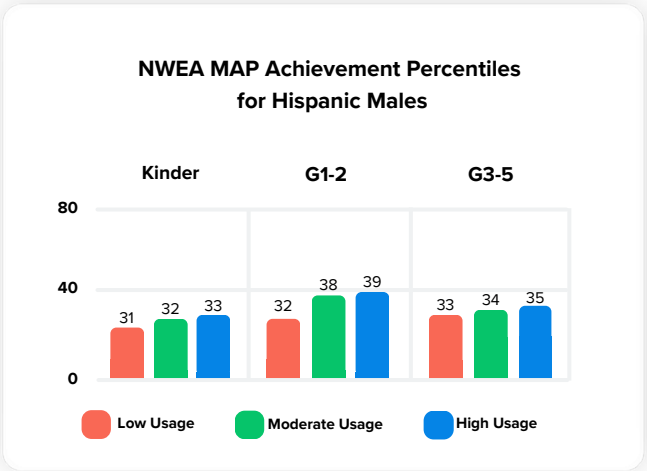
DreamBox Math usage had a positive impact on NWEA MAP and EOG math assessment scores. These positive findings hold across subgroups of interest as well as across grade levels and achievement levels.

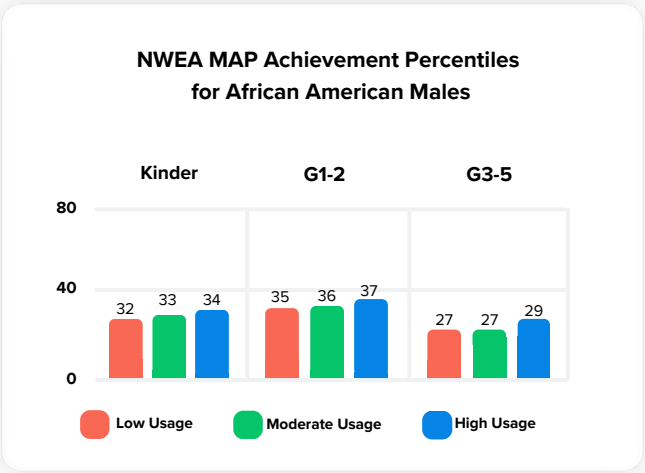


Students in K-5 with moderate and high usage of DreamBox Math (2 or more lessons weekly) scored significantly higher on the NWEA MAP than students with low usage (less than 2 lessons).**

Students in G4-5 with moderate and high usage of DreamBox Math had significantly higher EOG scores than students with low usage.**

Researchers categorized participants into eight groups formed by gender and race. Among all eight categories, there was a positive, statistically significant association between DreamBox Math usage and NWEA MAP scores. Hispanic and African American male students across grade levels **who completed at least 2 to 5 lessons per week** experienced a statistically significant increase in NWEA MAP scores.**





***All the usage group findings by grade-band listed in the charts are statistically significant at the p < .05 level. Researchers calculated Hedges' g effect sizes so that results could be compared between the different assessments and grade bands. Based on the established thresholds for effect size, DreamBox Math's effect can be considered "large" by research standards. See the full report for more details.*

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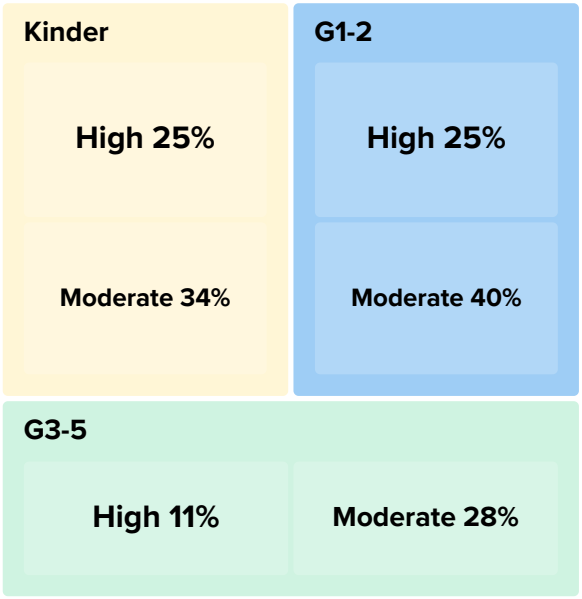
Among DreamBox Math users, what are the usage patterns?

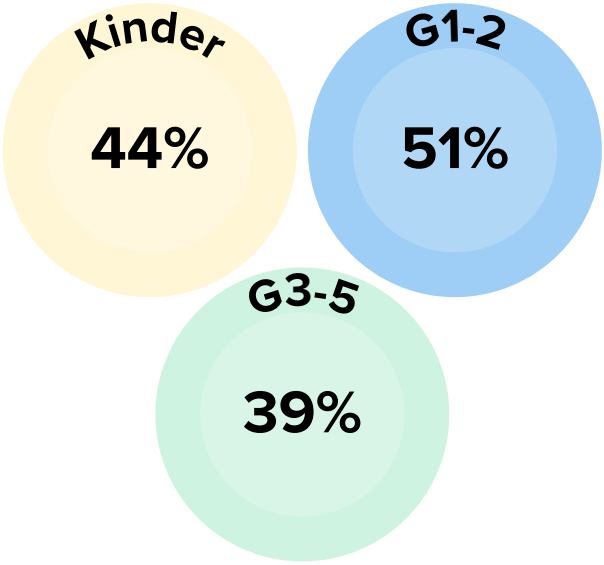
The DreamBox Math usage patterns among the 50,000+ K-5 students, when compared to the assessment scores, show that engagement with the program and following the recommended usage by DreamBox can positively impact achievement levels.

Average Weekly DreamBox Math Usage

% Students with Moderate to High Usage of DreamBox Math



% Students who Spend 30+ Minutes on DreamBox Math Weekly



Promising findings from this study support a positive correlation between DreamBox Math usage and improved math skills for K-5 students, which holds for race-and gender-based subgroups at the district, as well as for state math assessments. Ultimately, DreamBox Math can be considered an effective, evidence-based math tool for enhancing math instruction and accelerating learning.

Discovery EDUCATION

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