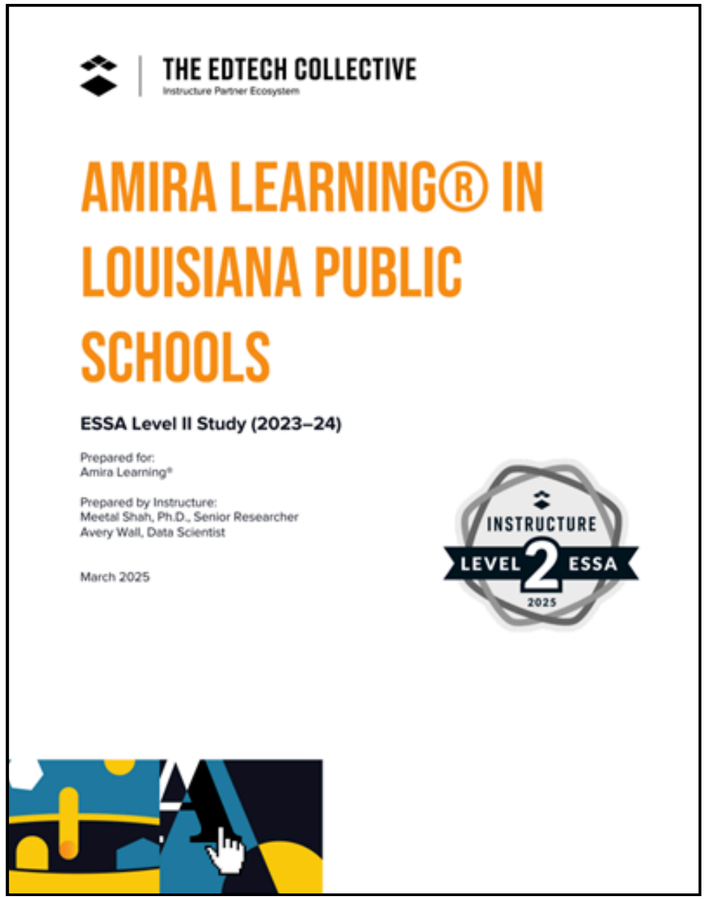
AMIRA LEARNING

2025

Louisiana Efficacy Research

LOUISIANA DEPARTMENT OF EDUCATION

High usage of Amira led to an amazing 13 Percentile Rating point gain for Louisiana students.



The Science of Reading + AI = Growth

Efficacy Research

Evidence from Louisiana

Abstract

The Louisiana Department of Education has made Amira available to all Louisiana Districts. Instructure was retained by the LADOE to evaluate Amira's impact on student performance on the state's summative assessment.

The research found that, when used frequently, Amira produced a positive acceleration on State Scores for students in every single grade. For example, as shown below, high-use Amira First Graders gained a full 13 Percentile Ranks on non-users.

High-use Amira users had higher spring 2024 DIBELS scores compared to non-users, and this difference was statistically significant (g = 0.32; p < .001); Figure 4. A Hedges' g value of 0.32 means that if an average Grade 1 student (one who scores right in the middle, at the 50th percentile) had used Amira at this level, they would be expected to perform at the 63rd percentile.

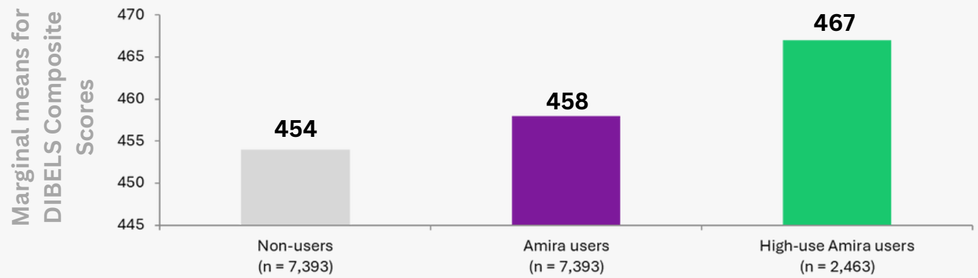
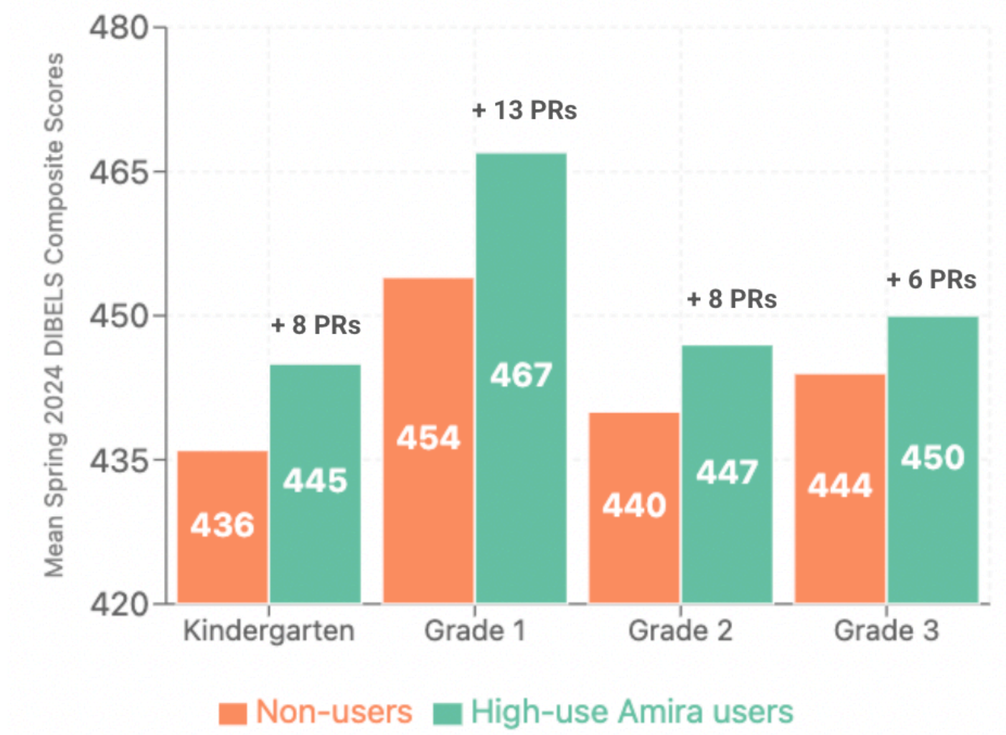


Figure 4. Adjusted mean spring 2024 DIBELS scores for Grade 1 non-users, all Amira users, and high use Amira users

What does this research demonstrate...?



The study's conclusion states...

In conclusion, the study found a consistently positive and statistically significant association between the time spent on Amira and students' achievements as measured by DIBELS and LEAP assessments. Overall, researchers found modest Hedges' g values and impact findings were consistently positive and statistically significant. Since the user group was not modified in terms of dosage for the main comparative analyses, these findings are reflective of real-world implementation. Moving forward, Amira Learning could consider conducting a randomized controlled trial (RCT) to further validate these results and/or investigate the reasons behind the lower-than-expected usage.

Who Conducted and Published the Research?

This study was commissioned by the Louisiana Department of Education. The research was conducteed by Instructure, a third party research firm.

Why Is This Research Consistent with the Science of Reading?

Louisiana has been a leader in adopting the Science of Reading. As a consequence, students in the state have outperformed students in every Other state across the country since the pandemic.

The data from this research shows Amira had a highly positive impact for ELL students which is the one subpopulation the LADOE had not been able to impact.

What was the study population?

Student demographics by group for matched sample

Characteristic	Amira students (n = 5,764)	Non-users (n = 5,764)	Total sample (n = 11,528)
Race $\chi^2(6) = 30.03$, $p < .001$			
Asian	1% (75)	2% (118)	2% (193)
Black or African American	38% (2,197)	37% (2,136)	38% (4,333)
Hispanic	21% (1,210)	20% (1,173)	21% (2,387)
Two or more races	4% (243)	4% (243)	4% (462)
White	35% (2,016)	35% (2,046)	35% (4,056)
Socioeconomic Status (low income flag) $\chi^2(1) = 0.05$, $p = .825$			
Yes	77% (4,434)	77% (4,444)	77% (8,878)
No	23% (1,330)	23% (1,320)	23% (2,650)
Gender $\chi^2(1) = 0.06$, $p = .809$			
Female	50% (2,882)	50% (2,895)	50% (5,777)
Male	50% (2,882)	50% (2,869)	50% (5,751)
English Language Learner $\chi^2(1) = 0.60$, $p = .437$			
Yes	15% (893)	15% (863)	15% (1,756)
No	85% (4,871)	85% (4,901)	85% (9,772)
Special Education Status $\chi^2(1) = 1.67$, $p = .197$			
Yes	11% (643)	10% (600)	11% (1,243)
No	89% (5,121)	90% (5,164)	89% (10,285)

Overall Association between Amira Usage and Grade 2 Students' Spring 2024 DIBELS Scores

Predictor	Unstd. Beta Coefficient	Standard Error	Test statistic	p-value
Moderate Use vs. Low Use (Hedges' g = 0.11)	4.06	0.59	6.89	<.001
High Use vs. Low Use (Hedges' g = 0.19)	7.04	0.62	11.36	<.001
Fall 2023 DIBELS scores	0.88	0.01	110.89	<.001
Race	1.07	0.16	6.87	<.001
SES	-1.65	0.62	-2.66	.008
ELL	22.07	0.85	25.92	<.001

How Was the Study Conducted?

This study used a quasi-experimental design to align with ESSA Level II evidence standards. It included a matched analysis sample of 79,158 elementary school (Kindergarten–Grade 5) students (39,579 treatment, 39,579 comparison) from across 12 school districts in Louisiana. The sample was predominantly African American and White (38%, respectively), followed by Hispanic (18%), multi-racial (4%), and Asian (2%). In terms of socioeconomic status (SES), this sample was classified as 75% economically disadvantaged. Ten percent of the sample has English language learner (ELL) designation, 14% of the sample has special education designation, and 50% of the sample identified as female.

Researchers analyzed Amira's implementation data—including total minutes used and passages read—along with demographic data from the 2023–24 school year and standardized assessment results to assess Amira's impact on student outcomes. The analysis included Dynamic Indicators of Basic Early Literacy Skills (DIBELS®) composite scores from fall 2023 and spring 2024 for the K–3 sample, as well as Louisiana Educational Assessment Program (LEAP) ELA scores from spring 2023 and 2024 for the Grades 4–5 sample.

For impact analysis, researchers created within-grade matched samples and conducted baseline equivalence testing. All analyses met What Works Clearinghouse (WWC) Version 5.0 baseline equivalence standards (What Works Clearinghouse, 2022). Analyses also included descriptive statistics and multi-level models to examine the association between Amira usage and students' spring 2024 DIBELS and LEAP performance (while controlling for fall 2023 and spring 2023 performance, respectively). Researchers also included student-level covariates to control for potential selection bias.

Details of the Demonstrated Effect

Main Research Findings

- There was a statistically significant, **positive** association between the total number of **minutes** spent on Amira and **DIBELS** scores for students in grades K–3.
- There was a statistically significant, **positive** association between the total number of **minutes** spent on Amira and **LEAP** ELA scores for students in grades 4 and 5.
- There was a statistically significant, **positive** association between the total number of **passages** read in Amira and **LEAP** ELA scores for students in grades 4 and 5.
- Grades K–3 students who used Amira had higher Spring 2024 DIBELS scores than non-users. This result was statistically significant across all grade-level samples.
- Grades 4–5 students who used Amira had higher Spring 2024 LEAP ELA scores than non-users. This result was statistically significant across both grade-level samples.

Where Can One Access the Full Study?

Background is available on the Amira Learning website. You can also reach out to info@amiralearning.com.

Learn More About Amira In Louisiana

https://www.npr.org/2024/10/30/nx-s1-5153916/louisiana-schools-use-artificial-intelligence-to-help-young-children-learn-to-read

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Summary & Conclusion

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