New research reveals the transformative impact of Zearn Math for students who consistently used Zearn grade-level math lessons, including those at the lowest levels of math proficiency.

Researchers analyzed how more than 14,000 elementary- and middle-school students across 31 Louisiana parishes performed on the 2022 Louisiana Educational Assessment Program 2025 (LEAP) state math assessment. The research employed a quasi-experimental matching technique, comparing students who consistently completed three or more grade-level Zearn Math digital lessons per week with a control sample of matched students who did not consistently use Zearn Math. Researchers found:

- Elementary and middle school students who consistently used Zearn Math scored significantly higher on 2022 LEAP than matched peers who did not use Zearn Math.

- Significant math gains were also evident among specific student groups, including Black and/or Latino students, economically disadvantaged students, multilingual learners, students in special education and chronically absent students.

- 70% of students at the lowest level of math achievement who consistently used Zearn Math improved their achievement level, compared to just 45% of matched students who did not use Zearn Math.

![Impact of Zearn Math on 2022 LEAP Scale Scores by Student Subgroup](image-url)

**FIGURE 1**

Elementary- and middle-school students who consistently used Zearn Math scored significantly higher on the state assessment than matched peers who did not use Zearn.
Researchers also analyzed the impact of Zearn Math on score gains for students across achievement levels. LEAP is scored according to five achievement levels: Unsatisfactory, Approaching Basic, Basic, Mastery and Advanced. Students scoring at Mastery and above are considered proficient in math.

**FIGURE 2**

*For students not yet meeting proficiency, consistent Zearn usage led to 1.5 to 2.0 years of math learning gains in one academic year.*

![Average Years of Growth in Math Learning from Spring 2021 to Spring 2022](chart)

Students who began the year below proficiency and consistently used Zearn Math experienced learning gains that exceeded Louisiana state benchmarks for the 1-year growth set for students below math proficiency. By contrast, students at the same starting levels who did not use Zearn fell short of state benchmarks.

**FIGURE 3**

*70% of students at the lowest level of math achievement who consistently used Zearn Math improved their achievement level on the 2022 LEAP assessment.*

![Impact of Zearn Math for Students Scoring at the Lowest Level of Math Achievement on 2022 LEAP](chart)
Students who started the school year below proficiency were more likely to improve their LEAP achievement level with consistent Zearn Math usage. 70% of students who scored Unsatisfactory in 2021 and consistently used Zearn improved their achievement level in 2022 compared to just 45% of matched students who did not use Zearn.

Like other ESSA-qualifying impact studies, these findings further underscore the transformative impact of Zearn Math for all kids - including students at the lowest levels of proficiency.
Endnotes

1 Zearn uses only de-identified data from our platform to identify insights and improve students' learning experiences. All student-level data used in this study was provided by LDOE under the terms of a data-sharing agreement. For more information on how we protect student privacy, visit about.zearn.org/privacy.

2 This efficacy analysis used a two-step Coarsened Exact Matching (CEM) method with optimal matching to create a control group that was as similar as possible to the treatment group of consistent Zearn Math users. The treatment group was composed of students who completed three or more Zearn digital lessons each week during the 2021–2022 school year. The control group was selected from other students in the district who completed an average of less than one lesson per week. Using CEM, treatment students were put into matching strata with control students that were in the same grade and within five scale score points on both the math and ELA spring 2021 LEAP. Then, within strata, treatment students were matched to control students with whom they shared at least six of ten other demographic and academic characteristics: parish, school, use case, gender, race, economic disadvantage, multilingual learner status, special education status, gifted status, and chronic absenteeism.

3 For all students who place below proficiency on the LEAP, Louisiana provides a “Growth to Mastery Target” that represents the number of scale score points a student is expected to increase each year in order to achieve “Mastery” by eighth grade. The “Growth to Mastery Target” is not calculated for students starting at “Mastery” or “Advanced” as this target intends to provide below-proficient students a pathway to proficiency by the 8th grade, and these students are already on track.

Technical Appendix

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