Recent research shows consistent Zearn usage during pandemic learning disruptions mitigated learning loss for students at all levels of math proficiency and across district contexts. As we continue our collective work to help all students recover learning, a pressing question remains: for students for whom the opportunity gaps are widest, what approach can help them catch up and move forward?

In 2019, only 34% of eighth-grade students achieved proficiency in grade-level math. Coupled with historic learning loss, supporting students below standard is more urgent than ever. However, traditional curricula teach grade-level math content with the assumption that students have mastered concepts from prior grades. Zearn takes a different approach: grade-level lessons have built-in learning acceleration so students can catch up on unfinished learning in the context of grade-level math. New research shows Zearn’s approach yields significant results: students at the lowest levels of math proficiency experienced 2x growth in scores when using Zearn in addition to their core curriculum.

**FIGURE 1**

Across district contexts, Zearn usage resulted in score growth across all starting points of grade-level readiness.

This new finding is based on an analysis of state assessment scores from Spring 2019 and Spring 2021, focusing on 3 large districts. In each district, researchers compared achievement growth for students who consistently completed 3 or more on-grade-level Zearn digital lessons each week in addition to their core curriculum during the 2020-21 academic year to students who did not use Zearn or used Zearn inconsistently. While this research study does not have a randomized control and differences between student groups cannot be fully ruled out, demographics were similar across all available measures.

© Zearn 2022
Focusing in on students who scored below standard, in each district, students in the lowest two proficiency levels on state tests in 2019 achieved outsized gains with Zearn over the 20–21 academic year. In Districts A and B, students at Level 1 and Level 2 experienced 2x growth on state assessment scores than students who learned with a high quality curriculum alone.

While growth in raw scores is promising, it is also important to compare growth in scores to the expected 2-year growth benchmarks set by each state assessment to ensure the most struggling students are not left behind.

Students at all starting points of grade-level readiness—at, above, and below standard—who consistently used Zearn experienced significant growth in their scores from 2019 to 2021 (see Figure 1). Consistent Zearn usage was particularly effective for students who scored below standard in 2019—these students experienced significantly more growth in state test scores when using Zearn in addition to their core curriculum.

**FIGURE 2**

**Students at the lowest levels of proficiency experienced more growth in scores when using Zearn, compared to high-quality curriculum alone.**

![Graph showing average assessment scores for the two lowest proficiency levels in District A, B, and C.](image)

Students at the lowest levels of proficiency experienced more growth in scores when using Zearn, compared to high-quality curriculum alone.

**FIGURE 3**

**With Zearn, students at the lowest levels of proficiency exceeded growth benchmarks, growing more than 2 grade levels in 2 years.**

![Graph showing years of learning growth for District A and B.](image)

With Zearn, students at the lowest levels of proficiency exceeded growth benchmarks, growing more than 2 grade levels in 2 years.

While low-scoring students with little to no Zearn usage fell short of state benchmarks for expected growth over 2 years, students at the same starting point who consistently used Zearn met and even exceeded expected 2-year growth on state assessments. Translated into years of learning growth (see Figure 3), students in District B who scored at the lowest level in 2019 grew 3.1 grade levels in two years when using Zearn alongside their core curriculum. In other words, over 2 years of learning during the pandemic, the most struggling students experienced more than an additional year of learning beyond the expected 2 year growth, while students at the same level who did not use Zearn continued to lose ground.
Almost 40% of these students at the lowest level of proficiency who used Zearn moved up at least one full level on state assessments.

Consistent Zearn usage helped students move out of the bottom level of math proficiency. In District A, 39% of students who scored at Level 1 in 2019 moved up to Level 2 or Level 3 after using Zearn with their core curriculum in the 20–21 academic year, compared to only 4% of students at the same starting level who did not use Zearn (see Figure 4). The same held true in District B, where 35% of the lowest scoring students moved up at least one level with Zearn, compared to only 22% of low Zearn users.

While Zearn is clearly effective at helping students catch up and move forward, it is not a silver bullet. In District C, where 80% of students are from low-income backgrounds and instruction was primarily remote during 2020–21, neither students who used Zearn nor students who did not use Zearn met expected 2-year benchmark growth on average, across all levels of proficiency (See Figure 5). However, Zearn dramatically reduced learning loss across students at all levels of math proficiency, and was particularly effective for students at the lowest levels of proficiency. For students who scored the lowest in 2019, Zearn usage resulted in 1.2 years of learning gains—more than a year of learning gains—while students who did not use Zearn saw only 0.2 years of learning gains over the course of 2 years. Students scoring at Level 2 in 2019 saw 1 year of growth with Zearn, while those students at the same level who did not use Zearn fell behind an additional 0.2 years.

In the context of district-wide declines, Zearn usage dramatically reduced learning loss for the most struggling students.

While many factors influence student achievement, one factor is clear: consistent Zearn usage is strongly associated with outsized achievement gains for students at the lowest levels of math proficiency. This research study provides promising evidence that Zearn’s embedded learning acceleration supports help all students catch up on unfinished learning and access grade-level math—even and especially those students who are the furthest behind.

1 “National Achievement Level Results: Grade 8,” The Nation’s Report Card.