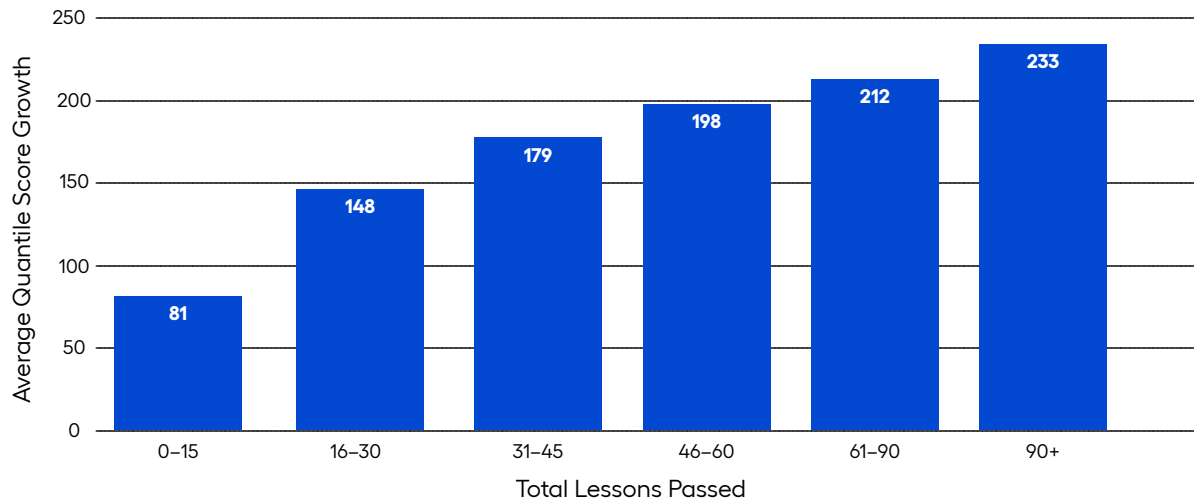


National Quantile Analysis 2021–2022

Imagine Math is a digital learning tool designed to improve mathematics proficiency. The program is utilized in 439 school districts throughout the nation. Data for students who used the Imagine Math program during the 2021–2022 school year was analyzed to determine the overall efficacy of the program. In total, data for 228,409 students who had completed benchmark assessments at the beginning and end of the school year was analyzed.

Overall Average Quantile Growth: 108Q

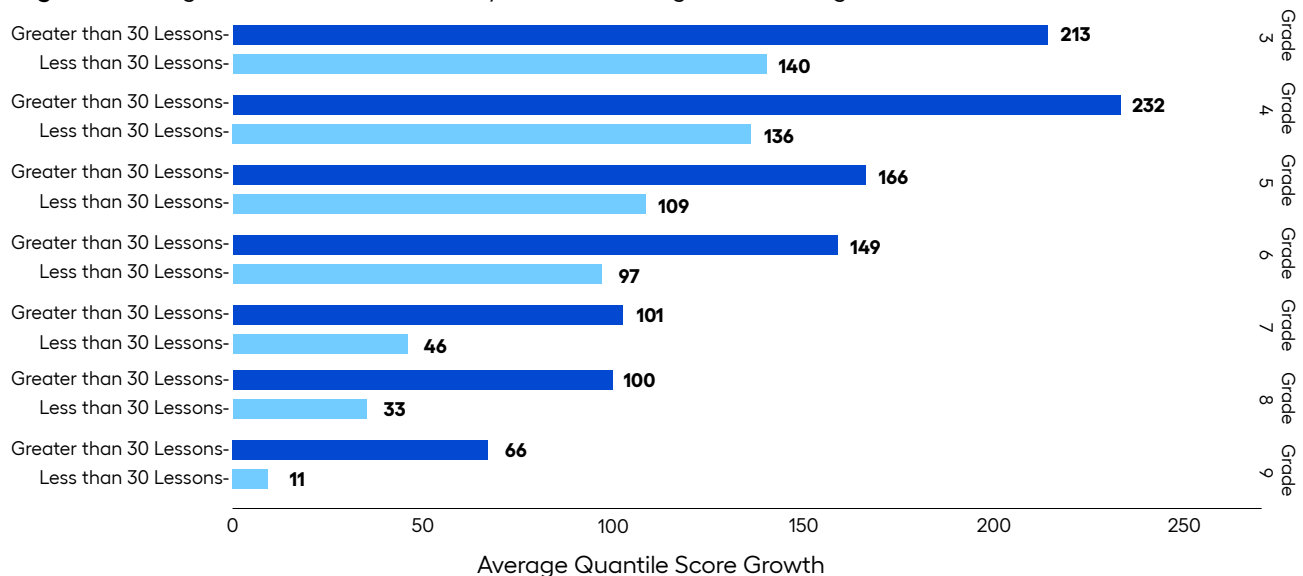
Figure 1. Average Quantile Score Growth by Average Imagine Math Lessons Passed



Growth by Consistency

Figure 2 demonstrates the effect of using Imagine Math on Quantile® score growth disaggregated by grade and by program usage. While growth was observed for all grades irrespective of usage levels, students who used the program with fidelity (i.e., 30 lessons passed) were more likely to enjoy significantly greater Quantile® score growth. Importantly, students who used the program with fidelity exceeded the levels of growth typically expected in a school year (**Table 1**).

Figure 2. Average Quantile Score Growth by Grade and Imagine Math Usage Level



Expected Growth

Table 1: Average Expected and Observed Quantile Score Growth by Grade for Students Who Completed 30+ Lessons

Grade	N	MetaMetrics Expected Growth per Year	Imagine Math Observed Growth per Year	MetaMetrics Expected Growth per Week (30 Weeks)	Imagine Math Observed Growth per Week (30 Weeks)
3	8,766	98Q	213Q	3.3Q	7.1Q
4	8,592	92Q	232Q	3.1Q	7.7Q
5	5,930	86Q	166Q	2.9Q	5.5Q
6	3,397	80Q	149Q	2.7Q	5Q
7	1,581	74Q	101Q	2.5Q	3.4Q
8	1,294	68Q	100Q	2.3Q	3.3Q
9	220	62Q	66Q	2.1Q	2.2Q

Note: Expected growth values retrieved from: Williamson (2016). Novel Interpretations of Academic Growth. Journal of Applied Educational and Policy Research 2(2), 15–35

Growth by Placement

Figure 3 demonstrates the effect of using Imagine Math on Quantile® score growth disaggregated by grade level placement (as determined by beginning-of-year benchmark assessment performance). While the most substantial gains were realized for students who tested far below grade level, positive gains were ultimately achieved for all users of the Imagine Math program.

Figure 3. Average Quantile Score Growth by Beginning-of-Year Grade Level Placement and Imagine Math Usage

