



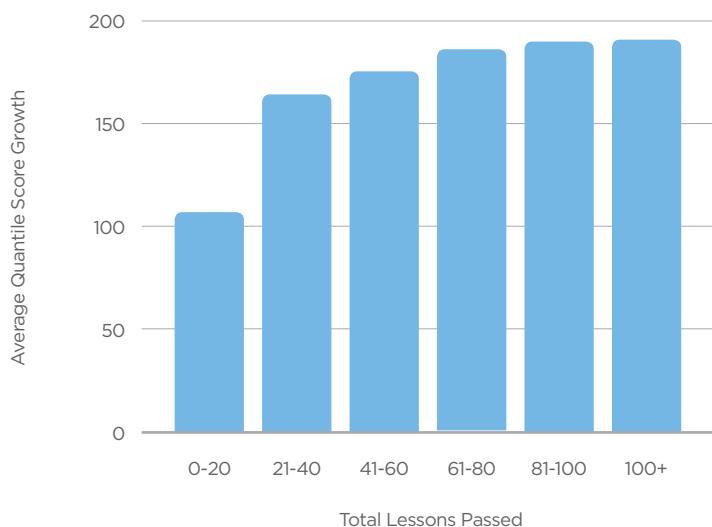
Texas Quantile Report Executive Summary

Imagine Math is a digital learning tool designed to improve mathematics proficiency. The program is utilized in several districts throughout the state of Texas. Data for all Texas students who used the Imagine Math program during the 2016-2017 school year was analyzed to determine the efficacy of the program. In total, data for 151,000 students who had beginning-of-year and end-of-year benchmark assessment scores was analyzed.

Imagine Math administers three benchmark assessments throughout the school year to measure growth and provide educators with a snapshot of each student's achievement level. The Imagine Math benchmark assessments are reported using The Quantile Framework® for Mathematics. As such, Quantile® measures were used to gauge student achievement and growth.

Figure 1 depicts the average Quantile® measure growth of Imagine Math students disaggregated by the number of lessons that students passed while using the program. The figure demonstrates that greater growth in Quantile® measures was observed for students who passed more Imagine Math lessons.

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



131Q

OVERALL AVERAGE TEXAS
QUANTILE® GROWTH

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 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

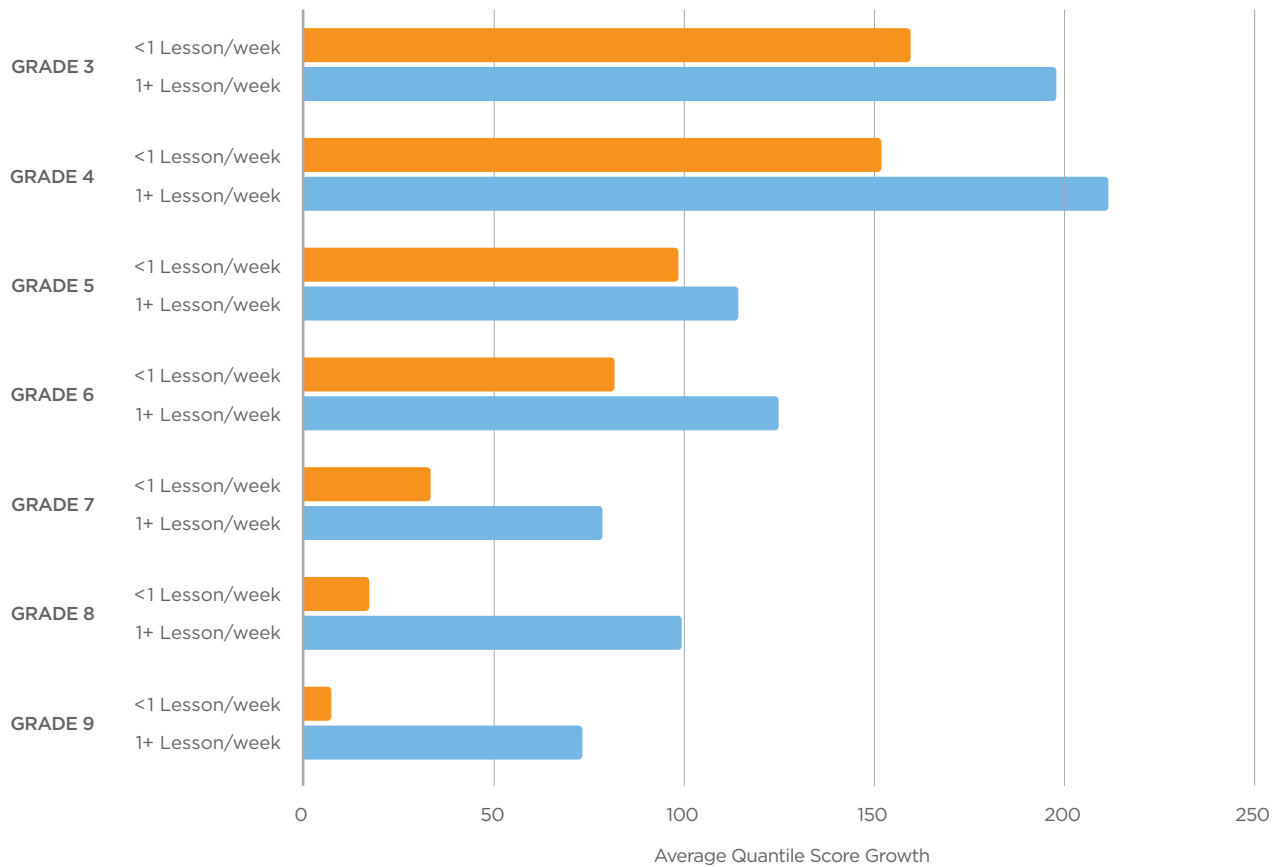


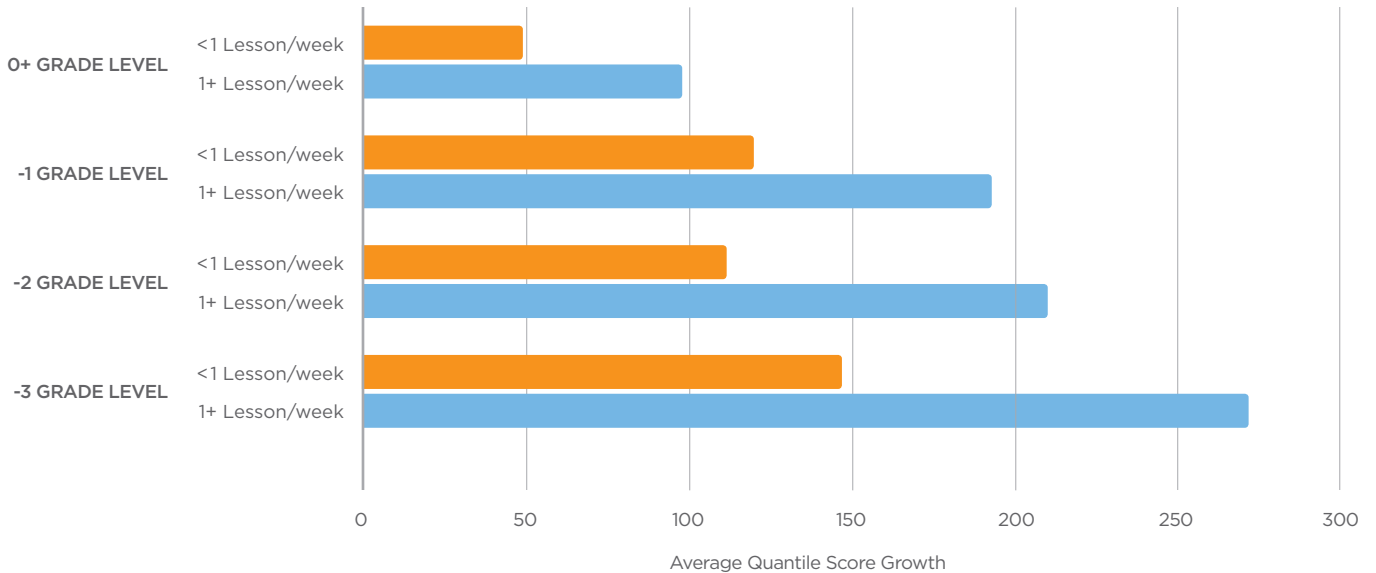
Table 1. Average Expected and Observed Quantile® Score Growth by Grade for Students Who Completed 1+ Lessons/Week

Grade	N	MetaMetrics Expected Growth per Year	Imagine Math Observed Growth per Year	MetaMetrics Expected Growth per week (36 weeks)	Imagine Math Observed Growth per week (36 weeks)
3	14,418	98Q	198Q	2.7Q	5.5Q
4	13,049	92Q	211Q	2.6Q	5.9Q
5	6,704	86Q	114Q	2.4Q	3.2Q
6	2,666	80Q	125Q	2.2Q	3.5Q
7	702	74Q	78Q	2.1Q	2.2Q
8	377	68Q	99Q	1.9Q	2.8Q
9	86	62Q	73Q	1.7Q	2.0Q

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

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 at three levels 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



In conclusion, regular use of the Imagine Math program appears to be associated with substantial increases in math proficiency as measured by increases in Quantile® scores between Imagine Math benchmark administrations. Increasing use of the program was associated with respective increases in Quantile® score growth. Further, the benefits of the Imagine Math program appear to be particularly relevant for students who are performing one or more levels below grade level.