

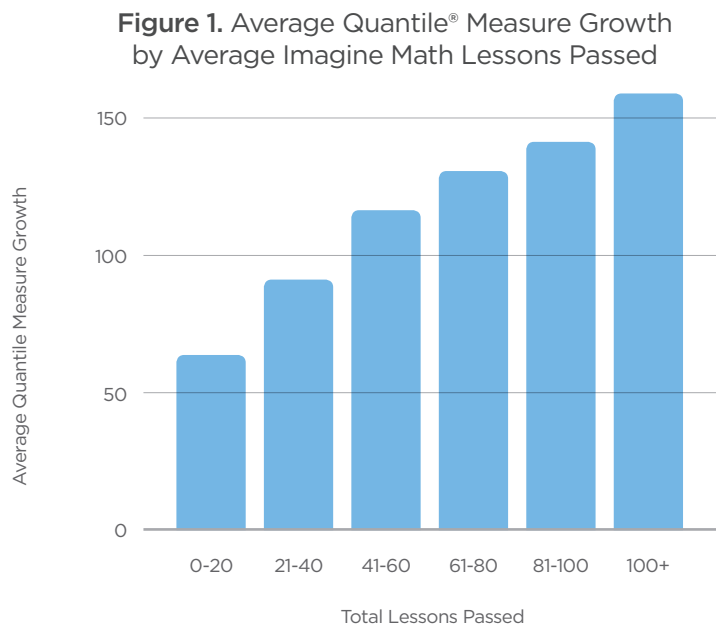


National Quantile Analysis

Imagine Math is a digital learning tool designed to improve mathematics proficiency. The program is utilized in several school districts throughout the nation. Data for students who used the Imagine Math program during the 2017–2018 school year was analyzed to determine the overall efficacy of the program. In total, data for 171,885 students who had completed benchmark assessments at the beginning and end of the school year was analyzed.

In Imagine Math, students complete up to 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 based on 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.



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OVERALL NATIONAL
QUANTILE® GROWTH

Figure 2 demonstrates the effect of using Imagine Math on Quantile® measure 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 most likely to enjoy significantly greater Quantile® measure growth.

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

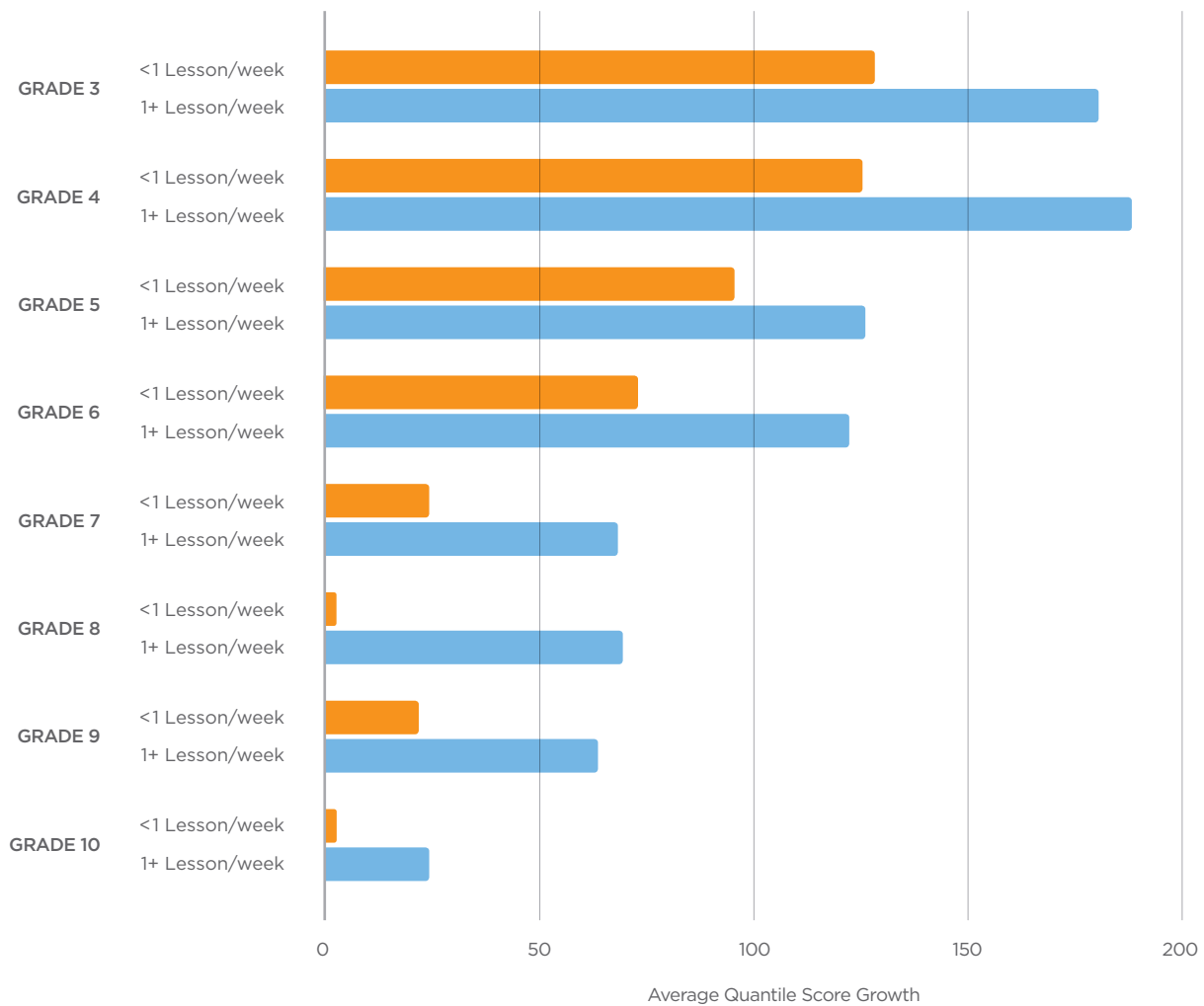
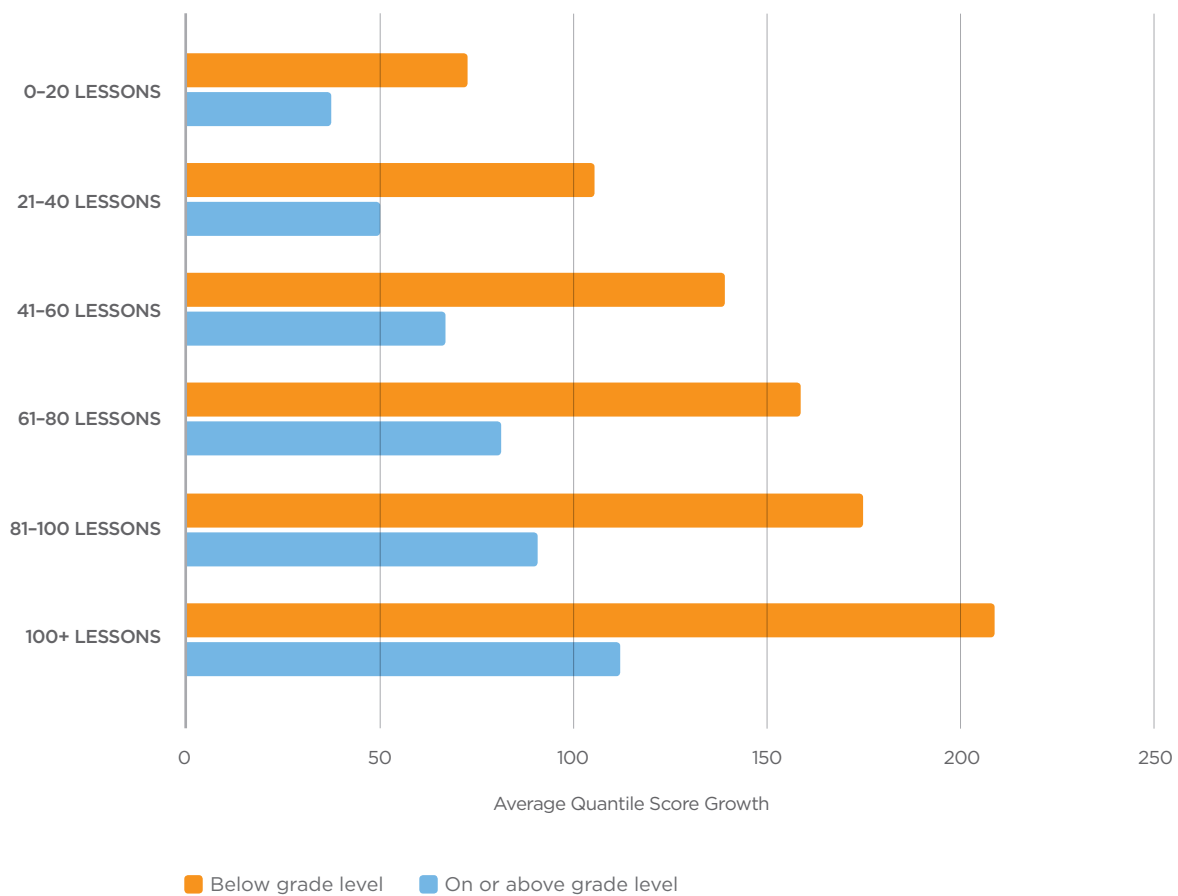


Figure 3 demonstrates the effect of using Imagine Math on Quantile® measure growth disaggregated by grade level placement (as determined by beginning-of-year benchmark assessment performance). While the most substantial gains were realized for students who tested as below grade level, greater gains were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

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



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® measures between Imagine Math benchmark administrations. Increased use of the program was associated with respective increases in Quantile® measure growth. Further, the benefits of the Imagine Math program appear to be particularly relevant for students who are performing below grade level.