# Using the Imagine Math Program Leads to Better Performance on State Mathematics Assessment in Colorado

## Background

Imagine Math is a rigorous, standards-aligned math program that personalizes learning for each student. Students are immersed in a language-rich curriculum that uses data to scaffold concepts for each learner, ultimately leading to deep understanding of math concepts and college- and career-readiness. Because the system is adaptive, students learn in their zone of proximal development with the right degree of challenge.

During the 2018-2019 school year, approximately 2,500 students in grades 4 through 8 in a Colorado school district utilized Imagine Math as a supplemental mathematics education tool. The primary objective of this study was to determine the impact of the program on student academic growth in mathematics. Ordinary least squares regression (controlling for student sex, race/ethnicity, ESL status, attendance, and prior-year state mathematics assessment score) was used to determine whether the number of lessons that students passed in the Imagine Math program was associated with positive scaled score growth on the Colorado Measures of Academic Success (CMAS). Students who used Imagine Math logged an average of approximately 18 hours in the program across the school year.

## Results

Figure 1 visualizes the association between students' CMAS Mathematics performance and the number of Imagine Math lessons that they passed during the 2018-2019 school year. The results reveal a strong, positive, and statistically significant association between Imagine Math program usage and students' performance on the CMAS assessment. Further, analyses utilizing logistic regression revealed that students who used the Imagine Math program with fidelity (30 total hours in program during the school year) were approximately 1.5 times more likely to achieve CMAS Mathematics proficiency than students who did not use the Imagine Math program. Ultimately, these results suggest that students who used the Imagine Math program during the 2018-2019 school year achieved better scores on their state assessment and were more likely to achieve mathematics proficiency.

**Figure 1.** Association between CMAS Mathematics scaled scores and the number of Imagine Math lessons passed.