Empowering Diverse Students Nationwide: The Impact of Imagine Math on Math Proficiency

The recent 2022 NAEP Mathematics Assessment reported the largest score declines in NAEP mathematics at grades 4 and 8 since the initial assessments launched in 1990. The results of this national assessment highlight the critical need for high-quality math instruction that builds mathematical knowledge and skills necessary for proficiency in mathematics.

Teachers, schools, and districts often utilize supplemental math programs to support student learning and close learning gaps in mathematic knowledge and skills. Imagine Math helps students excel in the development of mathematics knowledge and skill via motivating, age-appropriate learning environments, adaptive curriculum that challenges students with grade-level content, scaffolds to help learners succeed, and point-of-need access to live instruction by certified, bilingual math educators (grade 3 and up). Ultimately, when students engage with Imagine Math, they are able to achieve greater proficiency in mathematics. In fact, this is observed in a significant body of research demonstrating connections between use of Imagine Math and increases in student mathematics learning outcomes.

Imagine Math Students Across the U.S. Show Growth

To date, a significant body of rigorous research has explored the impact of Imagine Math on student learning outcomes. These studies are conducted in partnership with a variety of school districts across the nation providing opportunities to examine the ways in which Imagine Math can enhance learning gains for students of all demographic and academic backgrounds. For example, six studies conducted during the 2020-2021 and 2021-2022 school years demonstrate consistent, positive impact for diverse students in Idaho, New Jersey, Oklahoma, California, Texas, Florida, and North Carolina who used Imagine Math. The district partners included in each of these studies ranged from large metropolitan centers to small rural communities and enrolled students from diverse sociodemographic backgrounds (Table 1).

Table 1. Sociodemographic Characteristics of District Research Partners in Six Studies.

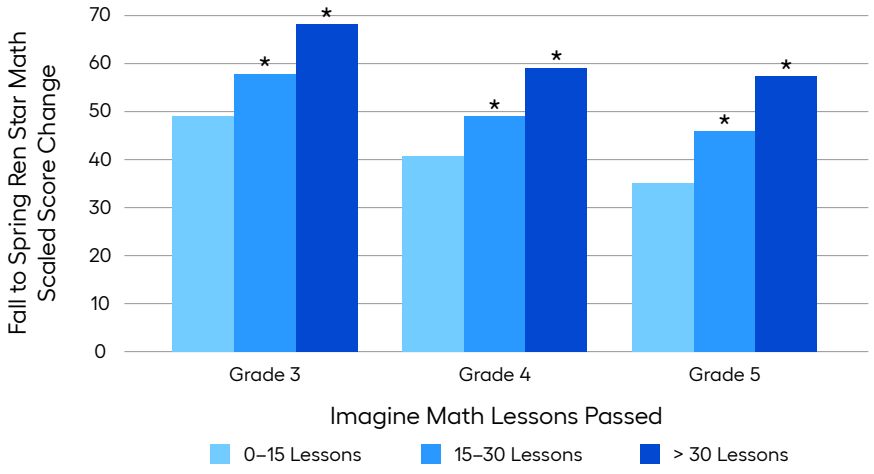
	State	% Income Below Poverty	Locale	% Hispanic or Latino	# of Schools Studied
Study 1	Idaho	Mixed	Rural, Town, Suburban	18%	31
Study 2	New Jersey	10.5%	Suburban	38%	14
Study 3	Oklahoma	9.7%	Suburban	9%	15
Study 4	California	4.4%	Suburban	32%	12
Study 5	Texas	18%	City	49%	22
Study 6	Florida, North Carolina	Mixed	Rural, Town, Suburban, City	23%	51

Note: Poverty, Locale, and % Hispanic or Latino data collected from the National Center of Education Statistics (https://nces.ed.gov/ccd/schoolsearch/). Study sample demographic data was used for studies with multiple participating districts.

Higher Usage = Higher Gains

A consistent observation from each of these six studies was the positive association between higher levels of program use and increased student gains (Figure 1). Some studies report on accelerated growth when students use Imagine Math. Others show that use of Imagine Math translates to improvements in academic performance beyond their similar peers who did not use the program. These findings confirm the direct contribution of Imagine Math in helping students advance in mathematics knowledge and skills.

Figure 1. Association between Lessons Passed in Imagine Math and Renaissance Star Math Scaled Score Growth for Oklahoma Students.

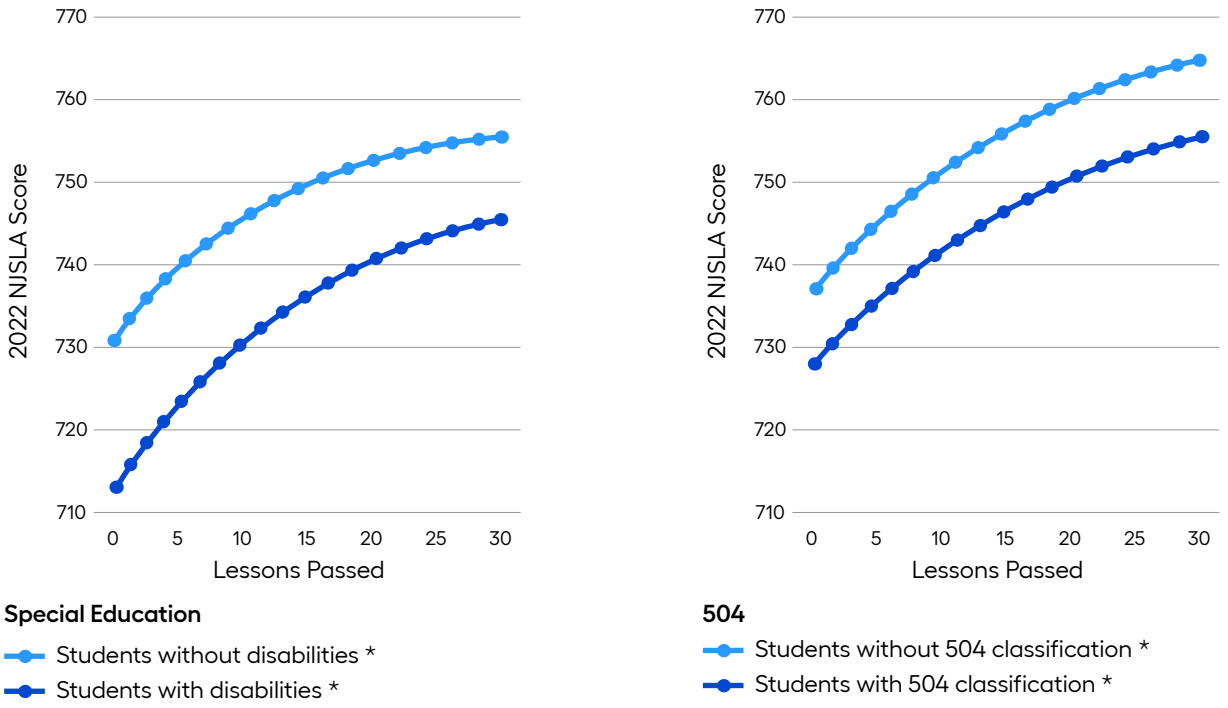


Note: Asterisks denote statistically significant relationship, *$p < .05$.

Imagine Math Benefits All Students

More importantly, this research revealed similar positive impacts for students of diverse backgrounds. For example, students with disabilities, English language learners, and students who may be economically disadvantaged all benefitted directly when using Imagine Math to enhance mathematic learning. Regardless of demographic or academic background, these studies showed that students who pass more Imagine Math lessons experience significantly greater improvements in mathematics achievement.

Figure 2. Association between Lessons Passed in Imagine Math and NJSLA Score by Special Education and 504 Classifications.



Note: Asterisks denote statistically significant relationship, *$p < .01$.

Conclusion

Students in these highlighted schools and districts showed demonstrable growth and achievement on mathematics assessments when using Imagine Math. Importantly, students enrolled in each of the highlighted districts or educational organizations represent a variety of cultural and socioeconomic backgrounds and all broadly experienced positive academic growth with the use of Imagine Math. Ultimately, this means that Imagine Math is an effective supplemental tool to teach math and increase math achievement for students of many backgrounds across the nation.