

Greater Use of Imagine Math is Associated with Increased Proficiency on the NWEA MAP Growth Math Assessment from Fall to Winter

OVERVIEW

During the 2022–2023 academic year, the School District of Beloit in Wisconsin implemented Imagine Math to promote mathematics achievement for students in Grades 3–8. The district was interested in evaluating differences in student performance from Fall 2022 to Winter 2023 based on program use. Students who passed more lessons in the Imagine Math program were compared to students who passed fewer lessons. Students were grouped based on whether they fell above or on/below the median number of lessons passed for students in their grade level. On average, the group of students in the “more lessons passed” group passed 9.18 Imagine Math lessons between September 2022 and January 2023. The group of students in the “fewer lessons passed” group passed 1.49 lessons in the same time frame.

Imagine Learning analyzed RIT score growth on the NWEA MAP Growth Math assessment from Fall 2022 to Winter 2023 administrations. Statistical matching procedures were utilized to ensure that students in each study group were highly similar based on performance (Fall 2022 MAP Growth Math RIT score) and demographic (grade, race/ethnicity, gender, free-or-reduced lunch status, special education status, and English learner status) factors.

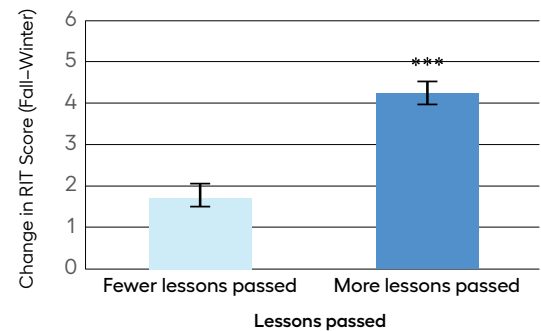
RESULTS

Imagine Math product usage was significantly associated with RIT score growth on the MAP Growth Math assessment (Figure 1). Students who passed more lessons in Imagine Math showed significantly greater RIT score growth from the Fall 2022 to Winter 2023 than students who passed fewer lessons ($p < .05$). See Table 1 for average scores and growth of both groups. This study provides evidence of program efficacy with greater use.

School District of Beloit, WI

Demographics of Matched Sample	More Lessons Passed Sample	Fewer Lessons Passed Sample
Female	51%	49%
Asian	1%	1%
Black	25%	27%
Hispanic	34%	36%
White	31%	29%
Two or More Races	8%	7%
English Learner	23%	24%
Free-or-Reduced Lunch	74%	76%
Special Education	10%	7%

Figure 1. Average Fall 2022 to Winter 2023 MAP Growth Math Growth by Lessons Passed in Imagine Math



Note. Error bars represent standard error. *** $p < .001$

Table 1. Average Fall 2022 to Winter 2023 MAP Growth Math Performance and Growth by Imagine Math Study Group

Study Group	# of Students	Avg. Fall 2022 RIT Score	Avg. Fall 2022–Winter 2023	
			RIT Score Growth	SE Growth
Fewer Lessons Passed	547	198.6	1.72	+/- 0.31
More Lessons Passed	547	199.2	4.24	+/- 0.28

Note. SE = standard error.