imagine mypath®

Impact Evaluation of Imagine MyPath® in a Northeastern School District

Drew Berrett, Ph.D.
Macey Cartwright, Ph.D.
Kayla Freeman

2021–2022

imagine learning

Contents

Abstract

This quasi-experimental study examined the impact of Imagine MyPath on math and reading achievement among Grade 2–5 students in a northeastern U.S. school district during the 2021–2022 academic year. Using propensity score matching to create statistically equivalent treatment and control groups, the analyses found that Imagine MyPath usage was associated with a statistically significant 3.43-point gain in math scores (Hedges' g = .21) and a marginally significant 2.90-point gain in reading scores (Hedges' g = .17) compared to non-users on the NWEA MAP Growth assessment. Grade band analyses revealed that Grades 3–5 users achieved significant gains in both math (Hedges' g = .19) and reading (Hedges' g = .31), while Grade 2 results were positive but not statistically significant. Findings suggest that Imagine MyPath effectively supports academic growth, particularly in mathematics and upper elementary grades.

Introduction

While it is clear from the National Assessment of Educational Progress that the majority of students across the nation are behind in reading and math (NAEP, 2022), the academic diversity within classrooms makes it incredibly difficult for teachers to address individual student needs (Smale-Jacobse et al., 2019). Imagine Learning's adaptive intervention program, Imagine MyPath, is designed to address this problem. Imagine MyPath's technology prioritizes essential skills and creates individualized learning paths, which continuously adapt to address the varying needs of academically diverse learners. Ultimately, use of the program is anticipated to close achievement gaps and maximize academic growth for K–12 students in reading and mathematics.

Imagine Learning commissioned research after the 2021–2022 school year to measure the impact of Imagine MyPath on student learning outcomes. To accomplish this goal, Imagine Learning partnered with a northeastern public school district that implemented Imagine MyPath for supplemental math and reading instruction with students in Grades 2–5. The following report describes this implementation as it relates to the study, details the results of the analyses, and discusses the implications of the findings.

Methods

POPULATION

Imagine MyPath was implemented with students in Grades 2–5 at a public school district during the 2021–2022 school year. The partnering district is located in the northeastern region of the United States and serves approximately 8,000 students. The program was used at teachers' discretion in the classroom. A total of 1,877 students used Imagine MyPath for supplemental math instruction, and 1,913 students used Imagine MyPath for supplemental reading instruction. Conversely, there were 92 students who did not use Imagine MyPath for math, and 93 students who did not use Imagine MyPath for reading. Because use of Imagine MyPath in the schools was determined for individual students (rather than for entire classrooms or schools), statistical corrections for clustering were not required. **Appendix A** details the distribution of Imagine MyPath users and non-users across schools and grades.

RESEARCH DESIGN

This study followed a quasi-experimental design and was conducted retrospectively using data from the 2021–2022 school year. Because Imagine MyPath offers distinct instruction in math and reading, and it is possible for students to have used Imagine MyPath for one subject and not the other, the two subjects were analyzed separately. For the math analysis, the treatment group was comprised of all students who used Imagine MyPath for at least one minute of math instruction, while the control group was comprised of all students who did not log any usage in the math program. Similarly, the treatment group for reading was

comprised of all students who used Imagine MyPath for at least one minute of reading instruction, while the control group was comprised of all students who did not log any usage in the reading program.

Since the identified study sample included a proportionally smaller number of students with zero exposure to the Imagine MyPath program for reading or mathematics, statistical procedures were employed to ensure baseline equivalence of the analytical treatment and control samples. Specifically, for every student that did not use the Imagine MyPath program, a statistically similar (based on demographics and baseline achievement) student was identified who used Imagine MyPath for more than one minute during the school year. This strategy significantly reduced the analytical sample to 70–75 students who used Imagine MyPath and 70–75 students who did not use Imagine MyPath. However, in utilizing this statistical methodology to identify study groups, we could be confident that the study groups were highly similar and that no external factors could explain detected differences between study groups.

MEASURES

The data used in this study included student-level demographic information, NWEA MAP Growth RIT scores, and Imagine MyPath program data. These data sources are reviewed in more detail below.

Math Proficiency. Students completed the NWEA MAP Growth Math assessment in Fall 2021 and Spring 2022. The average number of days between the Fall 2021 and Spring 2022 assessments was 233 (229 days for students in the control group and 233 days for students in the treatment group). Fall 2021 scores were used to establish baseline equivalence between study groups, and Spring 2022 scores were used to estimate the effect of Imagine MyPath on math proficiency.

Reading Proficiency. Students completed the NWEA MAP Growth Reading assessment in Fall 2021 and Spring 2022. The average number of days between the Fall 2021 and Spring 2022 assessments was 227 (225 days for students in the control group and 227 days for students in the treatment group). Fall 2021 scores were used to establish baseline equivalence between study groups, and Spring 2022 scores were used to estimate the effect of Imagine MyPath on reading proficiency.

Student Demographics. Student-level demographic data were collected for grade level, race/ethnicity, English language classification, special education classification, and free/reduced price lunch status for the 2021–2022 school year.

Imagine MyPath Usage. Imagine MyPath program usage data was collected to determine study groups and better understand treatment students' engagement and progress in the program. These data included the total minutes students spent in math and reading instruction and the number of lessons students passed (defined as lessons that students completed and achieved at least 80% accuracy on the post-lesson quiz).

ANALYTICAL SAMPLES

Separate analytical samples were created for the math and reading analyses. To ensure that the baseline characteristics of treatment and control students used in each analysis were comparable, 1:1 propensity score matching without replacement was used to create a statistically equivalent analytical sample.[1] Control students were matched to treatment students based on their Fall 2021 NWEA MAP Growth RIT score and all demographic information available: race/ethnicity, English language classification, special education classification, and free/reduced price lunch status. This matching process was conducted separately for math and reading, to create a math analytical sample and reading analytical sample. It was also completed on each grade individually before combining the matched grade level samples to create the total analytical samples. For math, the resulting analytical sample included 75 users of Imagine MyPath and 75 non-users. For reading, the resulting analytical sample included 70 users of Imagine MyPath and 70 non-users. **Tables 1** and **2** describes the characteristics of the analytical samples.

ANALYTICAL APPROACH

Multiple linear regression was used to evaluate the differences in Spring 2022 NWEA MAP Growth achievement between Imagine MyPath users and non-users, controlling for Fall 2022 MAP Growth achievement and other covariates (including grade level, race/ethnicity, special education classification, and free/reduced price lunch status). An indicator of whether a student was a control or treatment student was included in the regression as the primary predictor variable. Using multiple linear regression after propensity score matching ensured that any remaining differences in the underlying treatment and control samples were controlled for by the regression model, effectively isolating the impact of Imagine MyPath. Separate analyses were conducted for reading and math outcomes.

[1]Propensity score matching was executed using the matchit function in R's MatchIt package. For the Imagine MyPath Math sample, nearest neighbor matching with a caliper of 0.1 and exact matching on race/ethnicity was used for Grade 2; optimal pair matching was used for Grades 3–5. For the Imagine MyPath Reading sample, optimal pair matching was used for Grade 2; nearest neighbor matching with a caliper of 0.09 and exact matchingon race/ethnicity was used for Grades 3–5.

Table 1: Student Characteristics of the Reading Analytical Sample.

Math				
	Comparison Students (*n* = 75)	Imagine MyPath Students (*n* = 75)	*p*-value	Standardized Mean Difference (SMD)
Average (SD) Fall 2021 NWEA MAP Growth RIT Score	169.67 (15.36)	169.60 (14.28)	.978	0.004
Grade Level			>.999	<0.001
Grade 2	17	17		
Grade 3	34	34		
Grade 4	14	14		
Grade 5	10	10		
Race/Ethnicity			.993	.081
White	6	6		
Black or African American	4	3		
Hispanic or Latino	56	58		
Multi-ethnic	1	1		
Not Specified or Other	8	7		
English Language Classification			>.999	<0.001
Yes	19	19		
No	56	56		
Special Education Classification			>.999	<0.001
Yes	29	29		
No	46	46		
Free/Reduced Price Lunch			>.999	<0.001
Yes	41	41		
No	34	34		

Table 1: Student Characteristics of the Math Analytical Sample.

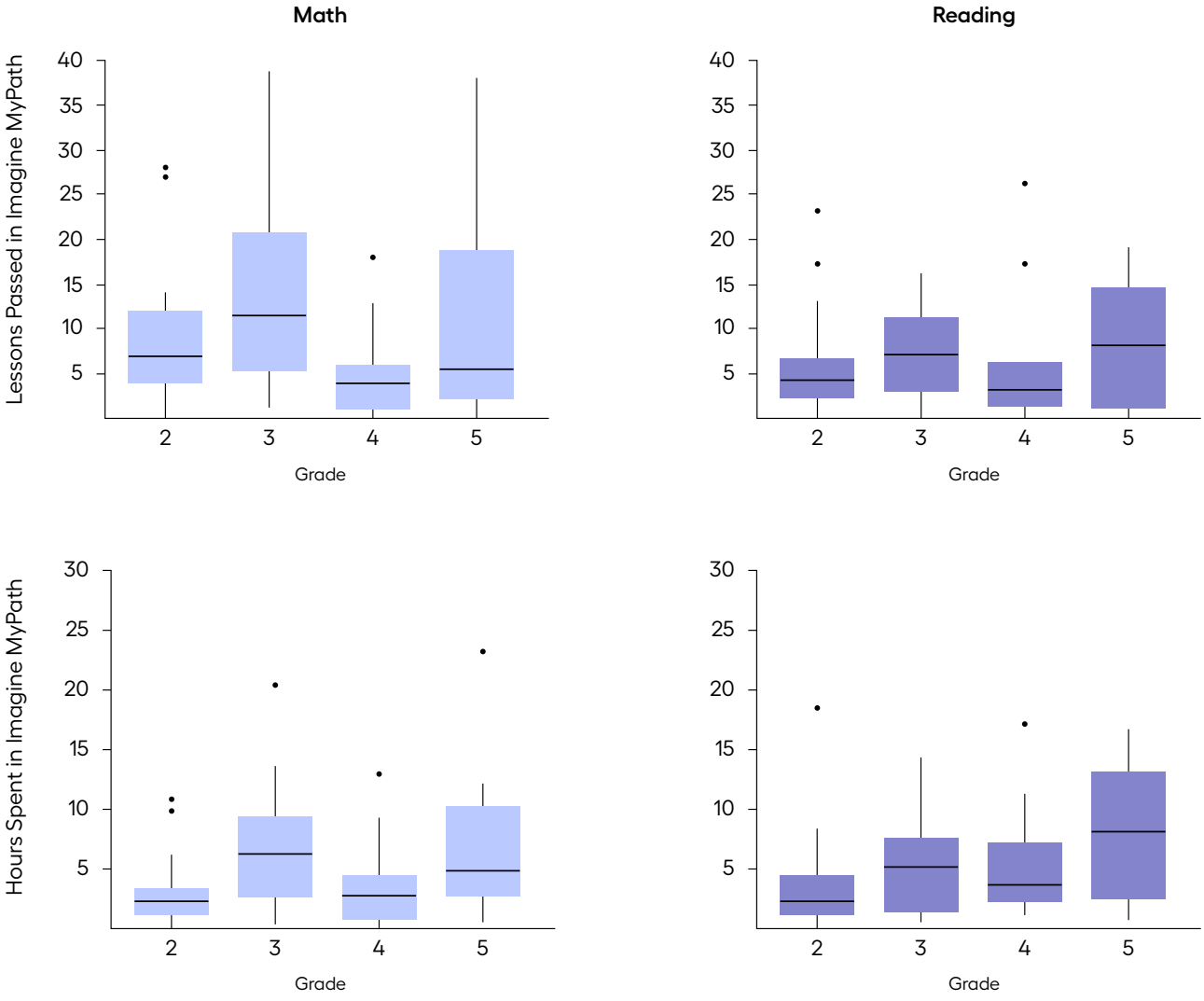
Math				
	Comparison Students (*n* = 70)	Imagine MyPath Students (*n* = 70)	*p*-value	Standardized Mean Difference (SMD)
Average (SD) Fall 2021 NWEA MAP Growth RIT Score	175.94 (16.91)	177.09 (18.62)	.704	0.064
Grade Level			>.999	<0.001
Grade 2	29	29		
Grade 3	25	25		
Grade 4	9	9		
Grade 5	7	7		
Race/Ethnicity			>.999	<0.001
White	5	5		
Black or African American	8	8		
Hispanic or Latino	42	42		
Multi-ethnic	3	3		
Not Specified or Other	12	12		
English Language Classification			>.999	<0.001
Yes	11	11		
No	59	59		
Special Education Classification			>.999	0.034
Yes	17	16		
No	53	54		
Free/Reduced Price Lunch			>.999	.029
Yes	27	26		
No	43	44		

Results

IMAGINE MYPATH USAGE

Treatment students in the math analysis spent an average of 5.37 hours in Imagine MyPath for math and passed an average of 10.88 lessons. Similarly, within the reading analytical sample, treatment students spent an average of 4.76 hours in Imagine MyPath for reading and passed and average of 7.64 lessons. See **Figure 1** for a distribution of hours and lessons passed by grade.

Figure 1. Boxplots of Time Spent and Lessons Passed in Imagine MyPath by Subject and Grade



Note: Within each box, thick horizontal black lines denote median values; boxes extend from the 25th to the 75th percentile of each group's distribution of values; vertical extending lines denote adjacent values (i.e., the most extreme values within 1.5 interquartile range of the 25th and 75th percentile of each group); dots denote observations outside the range of adjacent values.

PROGRAM IMPACT ON STUDENT ACHIEVEMENT

Overall, use of Imagine MyPath was found to generate a positive and statistically significant impact on students' mathematics performance. Specifically, students who used Imagine MyPath for supplemental math instruction (n = 75) scored an average of 3.43 points higher on the Spring 2022 NWEA MAP Growth Math assessment than otherwise similar non-user students (n = 75), B = 3.43, $t(137)$ = 2.710, p = .008. Program usage and the other covariates in the model accounted for 79% of the variance found in Spring 2022 scores, R^2 = .792, $F(12,137)$ = 43.41, p < .001. The Hedges' g effect size of Imagine MyPath Math program usage was .21.[2] **Table 3** summarizes the results of the multiple linear regression. The covariate-adjusted mean Spring 2022 score was 184.72 for Imagine MyPath Math users and 181.29 for non-users.

Overall, use of Imagine MyPath was found to generate a positive impact on students' reading performance, which was marginally significant. Specifically, students who used Imagine MyPath for supplemental reading instruction (n = 70) scored an average of 2.90 points higher on the Spring 2022 NWEA MAP Growth Reading assessment compared to other similar non-user students (n = 70), B = 2.90, $t(127)$ = 1.744, p = .084. Program usage and other covariates in the model accounted for 69% of the variance found in Spring 2022 scores, R^2 = .691, $F(12,127)$ = 23.7, p < .001. The Hedges' g effect size of Imagine MyPath Reading program usage was .17. **Table 3** summarizes the results of the multiple linear regression. The covariate-adjusted mean Spring 2022 score was 185.83 for Imagine MyPath Reading users and 182.94 for non-users.

[2]The effect size is calculated using Hedges' g computation following What Works Clearinghouse's Procedures and Standards Handbook, Version 5.0. The unadjusted standard deviations of the Spring 2022 scores can be found in Appendix B.

Table 3: Overall Impact of Imagine MyPath Math on Spring 2022 MAP Growth Math RIT Scores.

	Math			Reading		
Coefficients	**Estimate**	**Standard Error**	***p*-value**	**Estimate**	**Standard Error**	***p*-value**
Intercept	22.69	8.70	.010	52.99	9.59	<.001
Imagine MyPath User Indicator	3.43	1.26	.008	2.90	1.66	.084
Grade-Level Indicator						
Grade 3	-2.43	1.83	.187	-0.16	2.22	.943
Grade 4	-5.05	2.29	.029	-1.89	3.27	.564
Grade 5	-5.30	2.71	.053	2.86	3.56	.424
Fall 2021 MAP Growth RIT Score	0.93	0.05	<.001	0.75	0.06	<.001
Race/Ethnicity Indicator						
Hispanic or Latino	1.52	3.08	.621	4.26	2.87	.140
Multi-ethnic	4.96	6.37	.437	0.44	4.90	.929
Not Specified or Other	5.47	3.69	.141	1.33	3.55	.710
White	7.12	3.83	.065	1.53	4.32	.725
English Language Indicator	2.18	1.82	.235	-3.26	2.81	.250
Special Education Indicator	1.41	1.70	.409	0.29	2.23	.898
Free/Reduced Price Lunch Indicator	-2.30	1.44	.113	-4.68	1.91	.016

DIFFERENTIAL IMPACT BY GRADE BAND

A series of analyses were further conducted to examine whether the effects of Imagine MyPath varied across grade band.[3] Descriptive tables of unadjusted average NWEA MAP Growth Math and Reading RIT scores by grade band can be found in **Appendix B** and tables demonstrating baseline equivalence by grade can be found in **Appendix C**.

Grade 3–5 Imagine MyPath users demonstrated statistically significantly higher Spring 2022 NWEA MAP Growth RIT scores than comparable non-users in both math and reading. Specifically, Grade 3–5 students who used Imagine MyPath scored an average of 3.34 points higher on the Spring 2022 NWEA MAP Growth Math assessment than otherwise similar non-user students (covariate-adjusted means = 185.00 and 181.66, respectively), $B = 3.34$, $t(104) = 2.177$, $p = .032$. Program usage and the other covariates in the model accounted for 80% of

[3]Grade bands follow standards outlined by Evidence for ESSA: Grade 2 and Grades 3–5 are analyzed separately.

the variance found in Spring 2022 scores, R^2 = .801, $F(11,104) = 38.06$, $p < .001$. The Hedges' g effect size of Grade 3–5 Imagine MyPath program usage was .19. Additionally, Grade 3–5 students who used Imagine MyPath scored an average of 5.42 points higher on the Spring 2022 NWEA MAP Growth Reading assessment than otherwise similar non-user students (covariate-adjusted means = 193.11 and 187.70, respectively), $B = 5.42$, $t(70) = 2.754$, $p = .007$. Program usage and the other covariates in the model accounted for 78% of the variance found in Spring 2022 scores, $R^2 = .783$, $F(11,70) = 22.93$, $p < .001$. The Hedges' g effect size of Imagine MyPath program usage for students in Grades 3–5 was .31.

Results for Grade 2 were not statistically significant. **Table 4** summarizes the results of the multiple linear regressions for each grade band. Complete regression results can be found in **Appendix D**.

Table 4: Impact of Imagine MyPath on Spring 2022 MAP Growth Math RIT Scores by Grade Band.

	Math			Reading		
Grade Band	**Estimate on Imagine MyPath Indicator Variable**	**Standard Error**	***p*-value**	**Estimate on Imagine MyPath Indicator Variable**	**Standard Error**	***p*-value**
Grade 2	3.59	2.09	.097	-2.32	2.73	.399
Grades 3–5	3.34	1.53	.032	5.42	1.97	.007

Conclusion

Educational technology provides a means for improving student achievement through supplemental instruction that is individualized to meet the needs of each student. Moreover, digital learning solutions have a demonstrated impact on student outcomes and are a critical component of the future of education (Haleem et al., 2022; Li & Ma., 2010; Stacy et al., 2017). Imagine MyPath offers such a solution. The program prioritizes critical foundational skills in reading and math, with the goal of accelerating student growth to grade-level success.

This study set out to examine the impact of Imagine MyPath on the math and reading achievement of students in Grades 2–5. Overall, findings revealed a statistically significant impact for math and a marginally significant impact for reading. Students who used Imagine MyPath scored 3.43 points higher on the Spring 2022 administration of the NWEA MAP Growth Math assessment than did similar comparison students ($p < .01$). Imagine MyPath program users scored 2.90 points higher on the NWEA MAP Growth Reading assessment compared to similar non-users ($p = .08$).

A limitation of this study includes small sample sizes for some analyses. In particular, the grade band separation resulted in a small sample size for the Grade 2 analyses ($n_{math} = 34$; $n_{reading} = 58$). This, in addition to lower usage in Grade 2 (Figure 1), likely contributed toward marginally significant math and non-significant reading results. The sample size for the Grade 3–5 analysis was slightly larger ($n_{math} = 116$; $n_{reading} = 82$), and usage was greater; results revealed a significant impact of Imagine MyPath in both math and reading. In the future, a larger sample size and increased usage would allow for an even more robust evaluation of the program.

In summary, this study provides evidence of effectiveness of Imagine MyPath on math and reading outcomes. Specifically, it demonstrates Imagine MyPath's impact on the math and reading achievement of students in Grades 3–5, and the math achievement of students in Grade 2, by comparing the outcomes of students who participated in the program to those who did not.

References

Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. *Sustainable Operations and Computers, 3*, 275-285.

Li, Q., & Ma, X. (2010). A meta-analysis of the effects of computer technology on school students' mathematics learning. *Educational Psychology Review, 22*(3), 215-243.

National Research Council. (2012). Education for life and work: *Developing transferable knowledge and skills in the 21st century.* Committee on Defining Deeper Learning and 21st Century Skills, James W. Pellegrino and Margaret L. Hilton (Eds.), Board on Testing and Assessment and Board on Science Education, Division of Behavioral and Social Sciences and Education. The National Academies Press.

Smale-Jacobse, A. E., Meijer, A., Helms-Lorenz, M., & Maulana, R. (2019). Differentiated instruction in secondary education: A systematic review of research evidence. *Frontiers in psychology, 10,* 2366.

Stacy, S. T., Cartwright, M., Arwood, Z., Canfield, J. P., & Kloos, H. (2017). Addressing the math-practice gap in elementary school: Are tablets a feasible tool for informal math practice?. *Frontiers in psychology, 8*, 214487.

What Works Clearinghouse. (2022). *What Works Clearinghouse procedures and standards handbook,* version 5.0. U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance (NCEE).

Appendix A

Table A1: Imagine MyPath Users and Non-Users by School and Grade Level for Math

		Full Sample		Analytical Sample	
School Name	Grade Level	Imagine MyPath Math User	Non-User	Imagine MyPath Math User	Non-User
Elementary School # 1	4	136	7	1	7
	5	148	9	3	9
Elementary School # 2	4	146	6	7	6
	5	153	0	1	0
Elementary School # 3	2	13	7	2	2
	3	16	3	0	3
	4	28	1	1	1
	5	34	1	1	1
Elementary School # 4	2	111	16	6	9
	3	130	28	6	28
Elementary School # 5	2	142	9	2	5
	3	167	0	16	0
Elementary School # 6	2	155	2	7	1
	3	157	3	12	3
Elementary School # 7	4	178	0	5	0
	5	163	0	5	0

Table A2: Imagine MyPath Users and Non-Users by School and Grade Level for Reading

		Full Sample		Analytical Sample	
School Name	**Grade Level**	**Imagine MyPath Math User**	**Non-User**	**Imagine MyPath Math User**	**Non-User**
Elementary School # 1	4	138	10	3	5
	5	143	12	1	4
Elementary School # 2	4	147	13	2	4
	5	152	3	2	3
Elementary School # 3	2	18	2	0	2
	3	18	1	0	1
	4	30	0	0	0
	5	36	0	0	0
Elementary School # 4	2	113	16	6	16
	3	136	23	3	22
Elementary School # 5	2	152	1	11	1
	3	168	2	14	2
Elementary School # 6	2	158	10	12	10
	3	161	0	8	0
Elementary School # 7	4	180	0	4	0
	5	163	0	4	0

Appendix B

Table B1: Imagine MyPath Sample Unadjusted Mean MAP Growth Math RIT Scores by Grade Band

	Fall 2021 (SD)	Spring 2022 (SD)	Mean Change
Grade 2			
Comparison (*n* = 17)	165.94 (9.02)	177.65 (11.28)	11.71
Imagine MyPath Math (*n* = 17)	164.47 (10.41)	180.12 (9.73)	15.65
Grades 3-5			
Comparison (*n* = 58)	170.76 (16.67)	180.05 (18.19)	9.29
Imagine MyPath Math (*n* = 58)	171.10 (14.98)	183.84 (16.92)	12.53
All Grades			
Comparison (*n* = 75)	169.67 (15.36)	179.51 (16.83)	9.84
Imagine MyPath Math (*n* = 75)	169.60 (14.28)	182.84 (15.60)	13.24

Table B2: Imagine MyPath Reading Sample Unadjusted Mean MAP Growth Math RIT Scores by Grade Band

	Fall 2021 (SD)	Spring 2022 (SD)	Mean Change
Grade 2			
Comparison (*n* = 29)	169.31 (16.06)	183.21 (12.58)	13.90
Imagine MyPath Math (*n* = 29)	166.34 (15.96)	179.86 (15.69)	13.52
Grades 3-5			
Comparison (*n* = 41)	180.63 (16.06)	186.73 (18.71)	6.10
Imagine MyPath Math (*n* = 41)	184.68 (16.63)	195.61 (15.31)	10.93
All Grades			
Comparison (*n* = 70)	175.94 (16.91)	185.27 (16.44)	9.33
Imagine MyPath Math (*n* = 70)	177.09 (18.62)	189.09 (17.23)	12.00

Appendix C

Table C1: Grade 2 Band Baseline Equivalence

Math				
	Comparison Students (*n* = 17)	Imagine MyPath Students (*n* = 17)	*p*-value	Standardized Mean Difference (SMD)
Average (SD) Fall 2021 NWEA MAP Growth RIT Score	165.94 (9.02)	164.47 (10.41)	.663	0.151
Race/Ethnicity			>.999	<0.001
White	1	1		
Black or African American	0	0		
Hispanic or Latino	15	15		
Multi-ethnic	0	0		
Not Specified or Other	1	1		
English Language Classification			>.999	<0.001
Yes	3	3		
No	14	14		
Special Education Classification			>.999	.209
Yes	1	2		
No	16	15		
Free/Reduced Price Lunch			>.999	<0.001
Yes	10	10		
No	7	7		

Table C1: Grade 2 Band Baseline Equivalence cont.

Math				
	Comparison Students (*n* = 29)	Imagine MyPath Students (*n* = 29)	*p*-value	Standardized Mean Difference (SMD)
Average (SD) Fall 2021 NWEA MAP Growth RIT Score	169.31 (16.06)	166.34 (15.96)	.484	0.185
Race/Ethnicity			>.999	<0.001
White	1	1		
Black or African American	4	4		
Hispanic or Latino	19	19		
Multi-ethnic	2	2		
Not Specified or Other	3	3		
English Language Classification			>.999	<0.001
Yes	2	2		
No	27	27		
Special Education Classification			>.999	<0.001
Yes	4	4		
No	25	25		
Free/Reduced Price Lunch			.769	0.155
Yes	9	7		
No	20	22		

Table C2: Grade 3–5 Band Baseline Equivalence

Math				
	Comparison Students (*n* = 58)	**Imagine MyPath Students (*n* = 58)**	***p*-value**	**Standardized Mean Difference (SMD)**
Average (SD) Fall 2021 NWEA MAP Growth RIT Score	170.76 (16.67)	171.10 (14.98)	.907	0.022
Grade Level			>.999	<0.001
Grade 3	34	34		
Grade 4	14	14		
Grade 5	10	10		
Race/Ethnicity			.992	.096
White	5	5		
Black or African American	4	3		
Hispanic or Latino	41	43		
Multi-ethnic	1	1		
Not Specified or Other	7	6		
English Language Classification			>.999	<0.001
Yes	16	16		
No	42	42		
Special Education Classification			>.999	0.035
Yes	28	27		
No	30	31		
Free/Reduced Price Lunch			>.999	<0.001
Yes	31	31		
No	27	27		

Table C2: Grade 3–5 Band Baseline Equivalence cont.

Math				
	Comparison Students (*n* = 41)	**Imagine MyPath Students (*n* = 41)**	***p*-value**	**Standardized Mean Difference (SMD)**
Average (SD) Fall 2021 NWEA MAP Growth RIT Score	180.63 (16.06)	184.68 (16.63)	.266	0.248
Grade Level			>.999	<0.001
Grade 3	25	25		
Grade 4	9	9		
Grade 5	7	7		
Race/Ethnicity			>.999	<0.001
White	4	4		
Black or African American	4	4		
Hispanic or Latino	23	23		
Multi-ethnic	1	1		
Not Specified or Other	9	9		
English Language Classification			>.999	<0.001
Yes	9	9		
No	32	32		
Special Education Classification			>.999	0.053
Yes	13	12		
No	28	29		
Free/Reduced Price Lunch			>.999	.049
Yes	18	19		
No	23	22		

Appendix D

Table D1: Grade 2 Band Regression Results

	Math			Reading		
Coefficients	**Estimate**	**Standard Error**	***p*-value**	**Estimate**	**Standard Error**	***p*-value**
Intercept	32.20	19.83	.116	86.06	16.18	<.001
Imagine MyPath User Indicator	3.59	2.09	.097	-2.32	2.73	.399
Fall 2021 MAP Growth RIT Score	0.86	0.12	<.001	0.57	0.09	<.001
Race/Ethnicity Indicator						
Hispanic or Latino				5.06	4.13	.226
Multi-ethnic				0.20	6.75	.976
Not Specified or Other	3.79	4.70	.428	5.15	5.80	.379
White	2.58	4.87	.600	4.29	8.68	.623
English Language Indicator	3.68	2.83	.205	-5.16	5.83	.380
Special Education Indicator	2.51	3.85	.520	0.88	4.33	.840
Free/Reduced Price Lunch Indicator	1.42	2.26	.534	-9.67	3.40	.007

Table D2: Grade 3–5 Band Regression Results

	Math			Reading		
Coefficients	**Estimate**	**Standard Error**	***p*-value**	**Estimate**	**Standard Error**	***p*-value**
Intercept	20.57	10.31	.049	27.43	13.03	.039
Imagine MyPath User Indicator	3.34	1.53	.032	5.42	1.97	.007
Grade-Level Indicator						
Grade 4	-2.00	2.19	.362	-2.28	2.97	.446
Grade 5	-2.34	2.54	.360	0.76	3.38	.823
Fall 2021 MAP Growth RIT Score	0.93	0.06	<.001	0.88	0.073	<.001
Race/Ethnicity Indicator						
Hispanic or Latino	1.55	3.29	.640	3.14	3.89	.421
Multi-ethnic	4.69	6.80	.492	5.81	7.24	.425
Not Specified or Other	5.83	4.05	.153	-0.30	4.46	.947
White	7.43	4.24	.082	0.21	5.21	.969
English Language Indicator	2.13	2.29	.353	-3.18	3.12	.311
Special Education Indicator	1.50	2.01	.457	2.17	2.58	.403
Free/Reduced Price Lunch Indicator	-3.47	1.82	.060	-1.50	2.29	.514