

This quasi-experimental design (QED) study examined the **impacts of Progress Learning on Grades 3–6 student math and reading achievement**, as well as **Grade 5 science achievement**, across Forney ISD. In addition, the study examined associations between Progress Learning usage metrics and achievement outcomes across all subjects.

The study was situated in
Forney (TX)
Independent School
District



Math and ELA
Sample

13
schools

Science
Sample

3
schools

DATA SOURCES



NWEA MAP math,
reading and
science scores



STAAR math,
ELA, and
science scores

Primary Metric:

Total Progress Learning assignments completed for each student, by subject.

Impact analyses showed:



1.2–1.6

MAP score gain range for
math, reading, and science



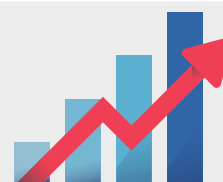
14 pts

outscored comparison
students on STAAR math



Subgroup analyses showed
consistent **positive impacts**
across all subject areas **for SPED,**
Black, and Hispanic students.

Counts of total Progress Learning assignments completed were
positively associated with math and ELA outcome variables.



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Impact Evaluation of Progress Learning in Forney Independent School District

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EXECUTIVE SUMMARY

In this quasi-experimental design (QED) study, we examined the impacts of Progress Learning on Grades 3-6 student math and reading achievement, as well as Grade 5 science achievement, across Forney ISD. The primary focus of this report was Progress Learning impacts on NWEA MAP Growth math, reading, and science scores, as well as STAAR math, ELA, and science scores. In addition, we examined associations between Progress Learning usage metrics and achievement outcomes across all subjects.

- The present study used a student-level QED design, with students from Progress Learning classrooms defined as the treatment group. A weighted comparison group consisting of students from non-Progress Learning classrooms was used as the comparison group for all impact analyses. Students were weighted at the individual level on the basis of prior achievement and demographic variables.
- The present study was situated in the Forney (TX) Independent School District. The total analytic sample for math and ELA analyses consisted of nearly 5,000 Grades 3-6 students, while the analytic science sample consisted of 1,169 Grade 5 students.
- Data sources included NWEA Measures of Academic Progress (MAP) Growth math, reading, and science scores, as well as STAAR math, ELA, and science scores. Progress Learning provided digital usage data to CRRE; the main attendance metric of interest was counts of total Progress Learning assignments completed for each student, by subject.
- Impact analyses showed significant positive impacts of Progress Learning on MAP math, reading, and science scores, as well as on STAAR math scores. MAP score gains ranged from 1.2-1.6 points, while treatment students outscored comparison students by more than 14 points on STAAR math. Effect sizes of these impacts ranged from .07-.11 SDs.
- Subgroup analyses showed consistent positive impacts across all subject areas for SPED, Black, and Hispanic students.
- Progress Learning impacts on STAAR ELA and science were directionally positive, but did not reach statistical significance.
- Counts of total Progress Learning assignments completed were positively associated with math and ELA outcome variables, after controlling for prior achievement and demographics. No significant association between science Progress Learning assignments and science achievement was evidenced.



INTRODUCTION

Overview of Progress Learning

As described by the provider, Progress Learning's comprehensive, standards-aligned instructional resource and content solution is designed for Grades K-12 in multiple subjects (e.g., English Language Arts & Reading, Mathematics, Science, and Social Studies). Over the last three decades, Progress Learning has developed innovative, high-quality, tech-enabled education solutions, progress monitoring, and standards-aligned content created by veteran classroom teachers. These products have served more than 2 million students per year in 4,500 schools nationwide across 50 states. More information can be found at progresslearning.com.

Forney Independent School District (Forney ISD) integrates Progress Learning across 16 campuses, including elementary, intermediate, and middle schools. The implementation of the platform varies by campus, with most schools utilizing a combination of the approaches outlined below.

Students who perform below grade level engage with Progress Learning's Adaptive Intervention Program, Liftoff. This program targets academic gaps and provides personalized instruction to help students progress toward grade-level proficiency. Within the core Progress Learning platform, students complete weekly study plans aligned with Texas Essential Knowledge and Skills (TEKS) standards. Student study plans incorporate practice questions and instructional videos to reinforce learning. Beyond independent practice in Liftoff and Study Plans, Forney ISD educators enhance instruction by assigning additional practice exercises and assessments to both individual students and entire classes, further supporting student growth and mastery.

Overview of the Evaluation

In 2024, Progress Learning contracted with CRRE to conduct a quasi-experimental design (QED) to study the impacts of Progress Learning on math, reading, and science achievement in Forney Independent School District (TX). The specific research interest was to determine the impacts of the Progress Learning program on Grades 3-6 students' math and reading achievement growth, as well as Grade 5 students' science achievement growth. Math, reading, and science achievement gains of students whose teachers used Progress Learning were compared to those of similar students whose teachers did not use Progress Learning. The study was designed to potentially meet ESSA Tier 2 ("Moderate evidence") criteria.

The present study used a quasi-experimental design (QED) to examine these research questions:

1. How does participation in Progress Learning impact student achievement in Grades 3-6 math and ELA and Grade 5 science?



- a. To what degree do effects vary across:
 - i. Academic subjects?
 - ii. Grade levels?
 - iii. Student subgroups (ethnicity, gender, ELL, SPED)?
- 2. Does level of program usage relate to student achievement effects?

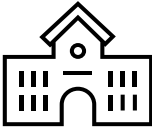

METHOD

Research Design

This study examined program impacts of Progress Learning (PL) by conducting a retrospective, mixed-methods quasi-experimental design (QED) study in Grades 3-6 of Forney ISD in the 2023-24 school year. Outcome measures for this study included NWEA Measures of Academic Progress (MAP) math, reading, and science scores, as well as State of Texas Assessments of Academic Readiness (STAAR) math, ELA, and science scores. MAP score gains from fall 2023 to spring 2024 were compared between treatment students whose teachers used Progress Learning and comparison students whose teachers did not use Progress Learning. Similar analyses compared gains on STAAR from spring 2023 to spring 2024. Student-level achievement Progress Learning usage data were analyzed descriptively, and hierarchical linear modeling (HLM) with students nested in teachers was used to conduct the main impact analyses.

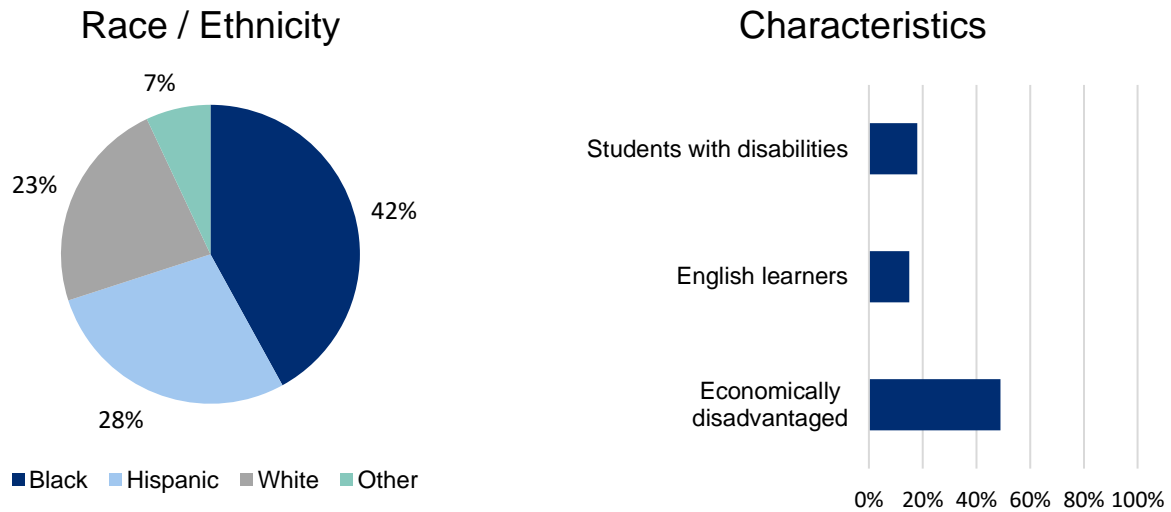
Participants

Details about study participants are presented below.

			
Subject:	Math	13 Schools	3,137 T Grades 3-6 students 1,883 C Grades 3-6 students
	Reading	13 Schools	2,261 T Grades 3-6 students 2,662 C Grades 3-6 students
	Science	3 Schools	417 T Grade 5 students 876 C Grade 5 students



Demographic snapshot of student participants:



The study took place in elementary and middle schools across Forney ISD in Texas. Forney ISD is a large rural district serving approximately 17,000 students across 24 schools. A total of 13 schools, mainly elementary and middle schools, were considered in the present analyses. Separate analytic samples were considered for math, reading, and science analyses. Demographics of the analytic samples are presented in Tables 1-3 below. In all samples, propensity-score weighting on the basis of prior achievement and demographic variables (described in more detail below) was used to create a sample of equivalent comparison students from the overall pool of comparison students.

Table 1
Demographics of Analytic Sample - Math Analyses

	Treatment %	Weighted Comparison %
Female	49.66	50.74
Black	39.38	36.78
White	25.19	26.49
Hispanic	28.20	28.72
Other Race/Ethnicity	7.23	8.01
SPED	15.87	19.92
ELL	15.18	15.17
FARMS	47.09	47.77
N	2,918	1,578

Table 2
Demographics of Analytic Sample - Reading Analyses

	Treatment %	Weighted Comparison %
Female	49.32	51.48



Black	38.70	38.67
White	27.47	24.18
Hispanic	26.33	29.83
Other Race/Ethnicity	7.50	7.32
SPED	15.43	15.32
ELL	15.20	15.15
FARMS	47.24	47.98
<i>N</i>	2,119	2,298

Table 3
Demographics of Analytic Sample - Science Analyses

	Treatment %	Weighted Comparison %
Female	50.00	49.77
Black	36.75	44.47
White	19.25	21.19
Hispanic	39.00	26.46
Other Race/Ethnicity	5.00	7.88
SPED	16.50	16.77
ELL	26.50	26.51
FARMS	51.50	49.79
<i>N</i>	400	769

Note. Only Grade 5 students were considered in these analyses.

Across all samples, sample composition was similar across conditions. The largest ethnic group of students was Black students, at approximately 40% of the sample, followed by Hispanic and White students. SPED and ELL students each constituted approximately 15% of each analytic sample, while approximately half of each sample was economically disadvantaged. No significant differences were observed across conditions in any of the demographic variables provided.

Measures

In order to address the research questions, the study team analyzed NWEA MAP Growth RIT math, reading, and science scores from fall 2023 and spring 2024, as well as STAAR math, ELA, and science scores from spring 2023 and spring 2024. We also examined student-level Progress Learning program usage metrics (see Table 4).

Table 4
Research Questions with Data Sources and Measures

Research Questions	Achievement Data	Program Usage Metrics
1. How does participation in Progress Learning impact student achievement in	✓	



Grades 3-6 math and ELA and Grade 5 science?		
2. To what extent is higher program usage associated with student achievement effects?	✓	✓

NWEA MAP Growth. Forney ISD provided CRRE with 2023-24 BOY, MOY, and EOY NWEA MAP mathematics, reading, and science assessment scores for all Grades 3-6 students. MAP Growth RIT scores are vertically scaled so that scores can be directly compared across grade levels. EOY MAP scores were used as outcome variables in impact analyses, while BOY MAP scores were used as prior achievement variables in these analyses.

STAAR. State of Texas Assessments of Academic Readiness (STAAR) math, ELA, and science data from spring 2023 and spring 2024 were obtained from Forney ISD. STAAR math and ELA scores were obtained from both 2023 and 2024, while STAAR science scores were only obtained from 2024, as this subtest is only administered to Grades 5 and 8 students. Spring 2024 scores were used as the outcome variables in all analyses, with spring 2023 scores used as prior achievement control variables. The BOY MAP science score was used as the prior achievement control variable in the Spring 2024 STAAR science impact analysis.

Demographic Data. Forney ISD provided CRRE with demographic data including gender, race/ethnicity, special education status, ELL status, and economically disadvantaged status. Teacher data were also provided for each student in each subject. Using these data, we were able to identify treatment and comparison students by teacher and cluster students within teachers for the main impact analyses.

Progress Learning Metrics. Progress Learning provided CRRE with student-level program usage data. These datasets included each student’s teacher, as well as performance on each Progress Learning assignment. For analytic purposes, data were collapsed for each student to contain each student’s teacher and a count of the number of assignments completed.

Analytical Approach

Data for students in Grades 3-6 were analyzed descriptively by examining patterns in NWEA MAP Growth RIT scores, STAAR scores, and Progress Learning program usage. Pearson correlations were computed to examine unadjusted associations between achievement variables and student-level Progress Learning program usage. Hierarchical Linear Modeling (HLM) was used to determine impacts of Progress Learning on achievement outcomes, as well as to determine relationships between program usage and achievement score gains. Demographic variables such as gender and race/ethnicity were included in all models, as well as dummy variables for student grade levels. All covariates in HLM models were grand-mean centered to enable interpretation of the intercept.



To adjust for prior achievement and demographic differences (namely, special education percentages), propensity-score weighting (PSW) was used to create comparison groups of students that were as similar as possible to treatment students. The PSW process was conducted once for each analytic sample (ELA and mathematics). Within each sample, treatment students were each given a weight of 1, and comparison students were each given a weight of:

$$Weight_i = \frac{Probability_i}{1 - Probability_i}$$

Here, the *Probability* variable represents the likelihood that a comparison student would be in the treatment group, given the students' prior achievement and demographics. Thus, students who are more similar to treatment students would have higher probabilities, while students less similar to treatment students would have lower probabilities. Students with weights of greater than 10 were dropped from analyses, as weights of these magnitudes are indicative of individual students who would have an outsized influence on analytic results.

The result of these PSW procedures was that comparison students who were more similar to treatment students in prior achievement and demographic variables were weighted more heavily in analyses and vice versa. This approach resulted in the contrast of weighted comparison groups that were as similar as possible to the observed groups of treatment students. After these weights were applied to comparison students, baseline equivalence was achieved for all NWEA MAP and STAAR achievement analyses, with standardized mean differences across each sample of less than .10 SDs. Adjusted baseline equivalence tables can be found in Table 5.

Table 5
Baseline Equivalence, Achievement Outcomes, by Test and Subject

Analytic Sample	All students <i>N</i>	Treatment			Comparison			Standardized Mean Difference <i>M</i>
		<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	
NWEA								
MAP								
Math	4,496	2,918	204.16	17.81	1,578	203.83	16.83	.02
Reading	4,417	2,119	200.96	17.67	2,298	201.01	16.68	.00
Science	1,169	400	201.62	12.07	769	202.61	11.38	-.09
STAAR								
Math	3,005	2,027	1561.55	185.97	978	1552.59	167.12	.05
ELA	2,922	1,454	1544.10	167.30	1,468	1543.63	164.31	.00
Science*	n/a							

Note: * BOY MAP Science was used as the prior achievement variable for STAAR Science analyses



RESULTS

This section of the report begins with findings related to Progress Learning’s impacts on MAP and STAAR scores. We then present results relating to associations between Progress Learning session attendance variables and math and reading achievement gains. Note that unadjusted descriptive analyses of MAP and STAAR scores and student-level program usage can be found in Appendix A.

Progress Learning Achievement Impacts

RQ1: How does participation in Progress Learning impact student achievement in Grades 3-6 math and ELA and Grade 5 science?

Key Findings

- > Significant positive impacts of PL were observed on both MAP and STAAR math assessments for Grades 3-6 students.
- > A significant positive impact of PL was observed on the MAP reading assessment, while a directionally positive impact was observed on STAAR ELA scores for Grades 3-6 students.
- > A significant positive impact of PL was observed on MAP science scores, while a directionally positive impact was observed on STAAR science scores for Grade 5 students.

Math Impact Analyses

This set of analyses focuses on the impact of Progress Learning on spring 2024 math outcomes (MAP and STAAR). Both impact analyses were grand-mean centered to enable interpretation of the intercept. The results of both analyses can be found in Table 6.

Table 6

Impact Analysis of Progress Learning on Spring 2024 NWEA MAP Math and STAAR Math Scores

Variable	Estimate	Standard error	p value	Effect Size
NWEA MAP Math				
Progress Learning	1.183***	0.326	<.001	.07
Constant	211.199***	0.297	<.001	
Variance of Constant	4.753			



Residual	43.774			
Student <i>N</i>	4,496			
Teacher <i>N</i>	119			
STAAR Math				
Progress Learning	14.126**	4.177	.001	.08
Constant	1621.666***	5.910	<.001	
Variance of Constant	1319.665			
Residual	7134.952			
Student <i>N</i>	3,005			
Teacher <i>N</i>	76			

Notes. 1. ** $p < .01$; *** $p < .001$. 2. MAP is Grades 3-6, while STAAR is Grades 4-6.

Progress Learning was shown to have a statistically significant positive impact on both NWEA MAP and STAAR math scores for Grades 3-6 students. The regression estimate can be interpreted as the average difference in spring 2024 test scores between treatment and matched comparison students. Thus, treatment students outscored matched comparison students by more than 1.1 points on the spring MAP math assessment and more than 14 points on the spring 2024 STAAR math assessment, controlling for prior achievement and demographic variables. The effect sizes of .07 and .08 SDs are indicative of small-to-medium practical impacts of Progress Learning on math scores (Kraft, 2020).

Subgroup analyses. We also conducted subgroup analyses examining Progress Learning impacts on math scores. We report the additive impacts of treatment main effects plus interaction terms for each subgroup of interest, with Wald tests performed on each simple effect. Complete regression tables related to subgroup analyses can be found in Appendix B. Tables 7 and 8 show the results of subgroup analyses for NWEA MAP and STAAR math scores, respectively.

Table 7

Subgroup Analysis Results, Progress Learning Impacts on MAP Math Scores

Subgroup	Estimate	<i>p</i> value	Effect Size	<i>n</i>
MAP Math				
SPED	1.369*	.018	.075	814
Female	1.095**	.002	.064	2,257
ELL	-0.334	.539	-.019	681
Hispanic	0.384	.388	.024	1,270
Black	1.760***	<.001	.099	1,768
Grade 3	0.912	.110	.065	1,173
Grade 4	0.786	.233	.049	1,131
Grade 5	1.890**	.009	.110	1,154
Grade 6	0.764	.146	.042	1,038

Note. * $p < .05$; ** $p < .01$; *** $p < .001$.



Table 8
Subgroup Analysis Results, Progress Learning Impacts on STAAR Math Scores

Subgroup	Estimate	p value	Effect Size	n
STAAR Math				
SPED	-0.066	.994	.000	529
Female	15.667*	.014	.089	1,510
ELL	3.692	.633	.021	464
Hispanic	9.946	.151	.060	844
Black	12.482*	.023	.076	1,163
Grade 4	12.114	.177	.069	1,041
Grade 5	13.651*	.026	.086	1,026
Grade 6	15.500*	.015	.097	938

Note. * $p < .05$.

Subgroup analytic models revealed no significant interactions of treatment by subgroup. Follow-up regression analyses of each subgroup, however, individually revealed statistically significant Progress Learning impacts for several subgroups across both measures. On MAP, significant positive impacts were observed for SPED, female, Black, and Grade 5 students, with impacts of between 1-2 points. Corresponding effect sizes ranged from .06 to .11 SDs. On STAAR, significant impacts occurred for female, Black, and Grade 5 students, with effect sizes ranging from .07-.10 SDs. Taken together, the results of these analyses show significant and practical impacts of Progress Learning on student math achievement.

Reading Impact Analyses

As with the math analyses, analyses of spring 2024 reading scores were conducted separately for NWEA MAP reading and STAAR ELA scores. Both impact analyses were grand-mean centered to enable interpretation of the intercept. The results of both analyses can be found in Table 9.

Table 9
Impact Analysis of Progress Learning on Spring 2024 NWEA MAP Reading and STAAR ELA Scores

Variable	Estimate	Standard error	p value	Effect Size
NWEA MAP Reading				
Progress Learning	1.555***	0.297	<.001	.10
Constant	205.458***	0.273	<.001	
Variance of Constant	3.314			
Residual	62.788			
Student N	4,417			
Teacher N	119			
STAAR ELA				
Progress Learning	8.010	5.652	.156	.05



Constant	1598.849***	4.083	<.001
Variance of Constant	372.478		
Residual	7345.479		
Student <i>N</i>	2,922		
Teacher <i>N</i>	75		

Notes. 1. *** $p < .001$. 2. MAP is Grades 3-6, while STAAR is Grades 4-6.

Progress Learning had a significant positive impact on NWEA MAP reading scores, with treatment students outscoring weighted comparison students by more than 1.5 points after controlling for prior achievement and demographic variables. Progress Learning effects were directionally positive, though not statistically significant, on STAAR ELA scores, with treatment students outscoring weighted comparison students by 8 points. Effect size estimates also indicated a larger practical impact of Progress Learning on MAP reading scores ($ES = .10$) than on STAAR ($ES = .05$).

Subgroup analyses. As with the math analyses, we also conducted subgroup analyses examining Progress Learning impacts across a variety of student subgroups for both MAP reading and STAAR ELA scores. Complete regression tables related to subgroup analyses can be found in Appendix C. Tables 10 and 11 show the results of subgroup analyses for MAP reading and STAAR ELA scores, respectively.

Table 10

Subgroup Analysis Results, Progress Learning Impacts on MAP Reading Scores

Subgroup	Estimate	<i>p</i> value	Effect Size	<i>n</i>
MAP Reading				
SPED	2.808***	<.001	.162	814
Female	1.066**	.006	.067	2,209
ELL	1.541*	.017	.093	674
Hispanic	1.510**	.003	.097	1,242
Black	1.537**	.001	.089	1,740
Grade 3	1.970**	.001	.127	1,177
Grade 4	0.723	.286	.047	1,084
Grade 5	1.261*	.018	.080	1,132
Grade 6	2.344***	<.001	.147	1,024

Note. * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 11

Subgroup Analysis Results, Progress Learning Impacts on STAAR ELA Scores

Subgroup	Estimate	<i>p</i> value	Effect Size	<i>n</i>
STAAR ELA				
SPED	8.050	.378	.057	525
Female	6.259	.302	.038	1,458
ELL	3.474	.826	.022	453
Hispanic	13.943	.150	.089	827



Black	11.299	.095	.072	1,125
Grade 4	18.593	.053	.119	997
Grade 5	6.702	.469	.040	1,010
Grade 6	-2.973	.676	-.019	915

Significant positive impacts were observed for nearly all student subgroups on MAP reading scores, with impacts generally ranging between 1-3 points (ES ranging between .07-.16 SDs). No significant subgroup impacts were evidenced on STAAR ELA scores, though estimates were generally all directionally positive.

Science Impact Analyses

In this section, we examine the results of analyses on the impacts of Progress Learning on science outcomes (MAP science and STAAR science). As in the previous sections, these impact analyses were grand-mean centered to enable interpretation of the intercept. The results of both analyses can be found in Table 12. Both analyses only examined Grade 5 science outcomes, as only small numbers of Grade 8 students used Progress Learning in science classes.

Table 12

Impact Analysis of Progress Learning on Spring 2024 NWEA MAP and STAAR Science Scores

Variable	Estimate	Standard error	p value	Effect Size
NWEA MAP Science				
Progress Learning	1.387***	0.380	<.001	.11
Constant	209.449***	0.321	<.001	
Variance of Constant	0.616			
Residual	47.999			
Student <i>N</i>	1,169			
Teacher <i>N</i>	17			
STAAR Science				
Progress Learning	58.587	32.053	.068	.12
Constant	3539.010***	25.600	<.001	
Variance of Constant	2020.317			
Residual	116006.200			
Student <i>N</i>	1,178			
Teacher <i>N</i>	17			

Note. *** $p < .001$.

A statistically significant positive impact of Progress Learning was observed for MAP science scores, with treatment students outscoring weighted comparison students by approximately 1.4-points. A directionally positive impact of Progress Learning was observed for STAAR science scores, with treatment students outscoring weighted comparison students by more than 58 points; however, this impact did not quite reach statistical significance ($p = .068$). Effect sizes of both impacts were greater than .10 SD,



indicating a medium-sized practical effect of Progress Learning on science achievement. Taken together, the results of these analyses show that Progress Learning usage in science classrooms was associated with higher science achievement.

Subgroup analyses. Similar to the prior main impact analyses, we also conducted subgroup analyses examining Progress Learning impacts across a variety of student subgroups for both MAP and STAAR science scores. Complete regression tables related to subgroup analyses can be found in Appendix D. Tables 13 and 14 show the results of subgroup analyses for MAP and STAAR science scores, respectively.

Table 13
Subgroup Analysis Results, Progress Learning Impacts on MAP Science Scores

Subgroup	Estimate	<i>p</i> value	Effect Size	<i>n</i>
MAP Science				
SPED	3.352**	.008	.253	202
Female	0.984	.076	.079	599
ELL	1.011	.222	.079	177
Hispanic	2.308**	.002	.191	336
Black	1.396*	.045	.108	488

Note. * $p < .05$; ** $p < .01$.

Table 14
Subgroup Analysis Results, Progress Learning Impacts on STAAR Science Scores

Subgroup	Estimate	<i>p</i> value	Effect Size	<i>n</i>
STAAR Science				
SPED	21.561	.732	.044	208
Female	47.728	.253	.106	602
ELL	64.985	.341	.131	178
Hispanic	114.395*	.011	.240	336
Black	41.913	.418	.091	494

Note. * $p < .05$.

Significant positive impacts were observed on MAP science scores for SPED, Hispanic, and Black students, with impacts ranging from 1.4-3.4 points. Effect sizes on MAP science ranged between .08-.25 SDs. Additionally, a significant positive impact was observed for Hispanic students on STAAR science, with Hispanic treatment students outscoring Hispanic comparison students by 114 points (ES = .24 SDs). These analyses provide evidence relating to the intervention having additional positive impacts on underserved student subpopulations, especially Hispanic students.



Progress Learning Usage and Achievement Associations

RQ 2. Does level of program usage relate to student achievement effects?

Key Findings

- Counts of completed PL assignments were significantly positive associated with math and ELA achievement scores, after controlling for prior achievement and demographic variables.
- Program usage was comparable in math and ELA, with the greatest usage evidenced in Grades 3 and 6 math classes and Grade 4 ELA classes.

In this section we present the results of correlational analyses examining associations between program usage variables and achievement gains. This is followed by supplementary regression analyses examining associations between Progress Learning assignment counts and achievement, controlling for prior achievement and demographic variables.

Associations Between Progress Learning Usage and Achievement

We begin by showing the results of descriptive analyses of counts of student assignments completed for each Progress Learning subject in the 2023-24 school year. The results of these analyses are shown by subject and grade level in Table 15.

Table 15
Progress Learning Assignments Completed, by Subject and Grade Level

Grade Level	Mean	SD	Minimum	Maximum	<i>n</i>
Math					
Grade 3	4.68	5.54	1	33	738
Grade 4	3.19	2.46	1	12	738
Grade 5	2.48	2.69	1	20	882
Grade 6	4.43	3.41	1	16	779
Overall	3.65	3.80	1	33	3,137
ELA					
Grade 3	3.93	3.98	1	19	563
Grade 4	5.20	5.21	1	21	651
Grade 5	3.49	2.99	1	19	683
Grade 6	3.73	4.68	1	20	364
Overall	4.13	4.29	1	21	2,261
Science					
Grade 5	2.76	2.19	1	10	417



Grade 8	1.65	0.48	1	2	81
Overall	2.58	2.05	1	10	498

Assignment completion metrics were comparable across math and ELA, with Progress Learning students averaging slightly more than four completed assignments in ELA and 3.6 completed assignments in math. Math usage was greatest in Grades 3 and 6, while ELA usage was greatest in Grade 4. Science usage was generally much spottier, especially in Grade 8, where only 81 students used Progress Learning, and these students only completed one or two assignments.

Next, we examine the results of unadjusted Pearson correlations showing the associations between counts of completed assignments and achievement outcomes by subject and grade (see Tables 16-18). Note that we only consider Grade 5 in subsequent science analyses, due to low usage in Grade 8 science classes.

Table 16
Associations Between Progress Learning Assignments Completed and Math Outcome Variables, by Grade Level

Grade Level	<i>R</i>	<i>p</i> value	<i>n</i>
MAP Math			
Grade 3	+.16***	<.001	735
Grade 4	+.15***	<.001	736
Grade 5	+.11**	.001	878
Grade 6	+.51***	<.001	775
Overall	+.19***	<.001	3,124
STAAR Math			
Grade 4	+.18***	<.001	738
Grade 5	+.10**	.003	882
Grade 6	+.55***	<.001	779
Overall	+.36***	<.001	2,399

Note. ** $p < .01$; *** $p < .001$.

Table 17
Associations Between Progress Learning Assignments Completed and ELA Outcome Variables, by Grade Level

Grade Level	<i>r</i>	<i>p</i> value	<i>n</i>
MAP Reading			
Grade 3	+.04	.305	560
Grade 4	+.37***	<.001	647
Grade 5	+.02	.620	677
Grade 6	+.01	.800	361
Overall	+.12***	<.001	2,245
STAAR ELA			
Grade 4	+.39***	<.001	651



Grade 5	+0.00	.995	683
Grade 6	+0.00	.961	364
Overall	+0.15***	<.001	1,698

Note. *** $p < .001$.

Table 18

Associations Between Progress Learning Assignments Completed and Science Outcome Variables, Grade 5 Students

Outcome	r	p value	n
MAP Science	-.16**	.001	415
STAAR Science	-.18***	<.001	417

Note. ** $p < .01$; *** $p < .001$.

Patterns of unadjusted associations differed across subjects and grade levels. Counts of Progress Learning math assignments completed were significantly positively associated with both MAP and STAAR math scores across all grade levels, with the magnitudes of these associations especially large for Grade 6 students ($r > .50$ on both measures). Patterns of associations were less consistent across ELA measures, with significant positive associations between completed ELA assignments and outcome measures observed only for Grade 4 students. By contrast, counts of science assignments completed were significantly negatively associated with science outcome variables, though the magnitudes of these associations were small (less than .2) for both associations.

We also conducted regression analyses examining the associations between counts of treatment students' completed Progress Learning assignments and achievement outcomes. These regression analyses were similar to the main impact analyses, with the treatment variable replaced by the count of completed Progress Learning assignments. Results are shown in Table 19.

Table 19

Associations Between Completed Progress Learning Assignments and Achievement, by Subject and Outcome Variable

Grade Band	Estimate	Standard Error	p value
Math			
MAP Math ($n = 2,918$)	0.223***	0.049	<.001
STAAR Math ($n = 2,010$)	5.449***	1.299	<.001
ELA			
MAP Reading ($n = 2,119$)	0.121*	0.047	.010
STAAR ELA ($n = 1,446$)	2.290**	0.733	.002
Science (Grade 5 only)			
MAP Science ($n = 400$)	0.241	0.290	.405
STAAR Science ($n = 401$)	-4.540	14.365	.752

Note.* $p < .05$; ** $p < .01$; *** $p < .001$



After controlling for prior subject-specific achievement and demographic variables, counts of completed Progress Learning assignments were significantly associated with MAP and STAAR scores in both math and reading/ELA. The regression estimate can be interpreted as the gain in outcome variable score associated with one completed Progress Learning assignment. Thus, in math, each completed assignment was associated with a .22-point increase in MAP math score and a 5.44-point increase in STAAR math score. Counts of complete Progress Learning science assignments were not significantly associated with MAP or STAAR science scores, but notably, the significant negative correlations from the prior unadjusted analyses were not present in these more rigorous analyses. In all, the results of these analyses show preliminary evidence of a positive relationship between counts of Progress Learning assignments completed and achievement, especially in math and reading/ELA.

DISCUSSION

The purpose of the present study was to evaluate the efficacy of Progress Learning in Forney ISD. Student achievement measures included NWEA MAP math, reading, and science scores, as well as STAAR math, ELA, and science scores. Progress Learning usage data were also analyzed to examine associations between completed assignments and achievement. We should note that Grade 8 science was initially intended to be a focus of this study; however, due to low usage levels, both in terms of counts of students and counts of lessons completed per student, we elected to not analyze this population, due to a lack of data.

Main Achievement Impacts

Results of the main impact analyses showed significant or directionally positive impacts of Progress Learning across all math, ELA, and science outcomes. On MAP math, reading, and science assessments, Progress Learning students outperformed weighted comparison students by 1.2-1.6 points, on average. In addition, treatment students significantly outscored weighted comparison students on the STAAR math assessment by 14 points. Progress Learning impacts on STAAR ELA and science were directionally positive, but did not reach statistical significance. Effect size estimates on MAP scores ranged from .07-.11 SDs, indicating small-to-medium practical impacts of Progress Learning, indicating comparable educationally meaningful program impacts on achievement. Notably, significant positive impacts for SPED students were evidenced across all MAP measures. In addition, significant positive impacts were evidenced for Black students on nearly every outcome measure, and for Hispanic students on most outcomes.

Program Usage Associations

Program usage, as measured by counts of completed Progress Learning assignments, was comparable across math and ELA classrooms, while usage in science classrooms was generally considerably lower. Unadjusted correlational analyses showed significant positive associations between counts of completed Progress Learning assignments and



both MAP and STAAR math and ELA outcome measures. Regression models controlling for prior achievement and demographic variables showed positive associations between counts of completed Progress Learning assignments across both math and ELA outcome measures. No significant positive associations between counts of completed science Progress Learning assignments and science outcome measures were evidenced.

Conclusion

Results of this evaluation showed statistically significant positive impacts of Progress Learning across math, ELA, and science outcomes, with treatment students significantly outperforming weighted comparison students on all NWEA MAP measures and the STAAR math assessment. These findings provide additional evidence supporting the efficacy of Progress Learning on achievement, building on a previous study conducted in a different district in the prior year (Cook, Eisinger, & Ross, 2024). Subgroup analyses showed positive impacts on many of the achievement outcomes in particular for SPED, Black, and Hispanic students. It is important to consider that this study took place in one rural school district in Texas. Thus, results of this study may not generalize to other student populations or school contexts. However, the consistent positive findings across subjects, coupled with the frequent positive relationships between Progress Learning usage (lessons completed) and student performance strongly suggest that the program had educationally meaningful benefits across the district. The rigor of the study with regard to the large sample size, use of standardized achievement measures, and strong equivalence of the treatment and comparison samples, in turn, provides supportive results that meet ESSA Tier 2 (“moderate evidence”) criteria. More research across different school contexts is encouraged to enhance the generalizability of these results, especially relating to science efficacy. Also encouraged is the addition of qualitative measures to determine teachers’ and students’ experiences with the program and perceptions of its impact on instruction and learning.



APPENDIX A: Descriptive Achievement Analyses

Table A1

Average MAP Math Growth RIT Scores, by Grade Level

Group	Pretest	Posttest	Change
Grade 3			
Treatment (<i>n</i> = 680)	187.91	203.09	5.18
Matched Comparison (<i>n</i> = 493)	189.41	204.78	5.37
Grade 4			
Treatment (<i>n</i> = 683)	201.79	212.79	11.00
Matched Comparison (<i>n</i> = 448)	202.73	213.56	10.83
Grade 5			
Treatment (<i>n</i> = 842)	207.83	213.46	5.63
Matched Comparison (<i>n</i> = 312)	213.59	218.86	5.27
Grade 6			
Treatment (<i>n</i> = 713)	217.59	225.36	7.77
Matched Comparison (<i>n</i> = 325)	211.44	217.55	6.11
All			
Treatment (<i>n</i> = 2,918)	204.16	213.79	9.63
Matched Comparison (<i>n</i> = 1,578)	203.83	213.45	9.62

Table A2

Average STAAR Math Scores, by Grade Level

Group	Pretest	Posttest	Change
Grade 4			
Treatment (<i>n</i> = 642)	1459.86	1585.73	125.87
Matched Comparison (<i>n</i> = 399)	1456.82	1588.10	131.28
Grade 5			
Treatment (<i>n</i> = 740)	1547.21	1591.32	44.11
Matched Comparison (<i>n</i> = 286)	1561.59	1607.61	46.02
Grade 6			
Treatment (<i>n</i> = 645)	1679.22	1765.27	86.05
Matched Comparison (<i>n</i> = 293)	1637.94	1723.77	85.83
All			
Treatment (<i>n</i> = 2,027)	1561.55	1644.90	83.35
Matched Comparison (<i>n</i> = 978)	1552.08	1637.63	85.55

Table A3

Average MAP Reading Growth RIT Scores, by Grade Level

Group	Pretest	Posttest	Change
Grade 3			



Treatment ($n = 531$)	186.61	200.68	14.07
Matched Comparison ($n = 646$)	187.34	198.83	11.59
Grade 4			
Treatment ($n = 599$)	200.30	207.89	7.59
Matched Comparison ($n = 485$)	198.70	205.92	7.22
Grade 5			
Treatment ($n = 643$)	205.87	209.35	3.48
Matched Comparison ($n = 489$)	206.93	209.58	2.65
Grade 6			
Treatment ($n = 346$)	214.99	218.96	3.97
Matched Comparison ($n = 678$)	209.30	212.57	3.27
All			
Treatment ($n = 2,119$)	200.96	208.34	7.38
Matched Comparison ($n = 2,298$)	201.01	207.04	6.03

Table A4
Average STAAR ELA Scores, by Grade Level

Group	Pretest	Posttest	Change
Grade 4			
Treatment ($n = 553$)	1474.37	1594.42	120.05
Matched Comparison ($n = 444$)	1475.92	1584.50	108.58
Grade 5			
Treatment ($n = 573$)	1537.20	1588.27	51.07
Matched Comparison ($n = 286$)	1559.52	1606.80	47.38
Grade 6			
Treatment ($n = 328$)	1673.74	1707.68	36.94
Matched Comparison ($n = 587$)	1631.09	1681.98	50.89
All			
Treatment ($n = 1,454$)	1544.10	1617.55	73.45
Matched Comparison ($n = 1,468$)	1543.63	1613.93	70.30

Table A5
Average MAP Science Scores, Grade 5

Group	Pretest	Posttest	Change
Treatment ($n = 400$)	201.62	210.98	9.36
Matched Comparison ($n = 769$)	201.63	208.89	7.26



APPENDIX B: Full Math Subgroup Regression Analyses

Table B1

SPED Subgroup Analysis of Progress Learning Impacts on Spring 2024 MAP Math Scores

Variable	Estimate	Standard error	p value
PL	1.141**	0.349	.001
PL*SPED	0.228	0.601	.704
Constant	211.205***	0.296	<.001
N	4,496		

Note. ** $p < .01$; *** $p < .001$.

Table B2

ELL Subgroup Analysis of Progress Learning Impacts on Spring 2024 MAP Math Scores

Variable	Estimate	Standard error	p value
PL	1.479***	0.329	<.001
PL*ELL	-1.813***	0.502	<.001
Constant	211.188***	0.296	<.001
N	4,496		

Note. *** $p < .001$.

Table B3

Grade Level Subgroup Analysis of Progress Learning Impacts on MAP Math Scores

Variable	Estimate	Standard error	p value
PL (Grade 6)	0.764	0.525	.146
PL*Grade 3	0.148	0.772	.848
PL*Grade 4	0.004	0.853	.996
PL*Grade 5	1.126	0.897	.209
Constant	211.271***	0.294	<.001
N	4,496		

Note. *** $p < .001$.

Table B4

Ethnicity Subgroup Analysis of Progress Learning Impacts on Spring 2024 MAP Math Scores

Variable	Estimate	Standard error	p value
PL	1.254*	0.487	.010
PL*Hispanic	0.871	0.553	.115
PL*Black	0.506	0.535	.344
Constant	211.185***	0.295	<.001



<i>N</i>	4,496
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Note. * $p < .05$; *** $p < .001$.

Table B5

Gender Subgroup Analysis of Progress Learning Impacts on Spring 2024 MAP Math Scores

Variable	Estimate	Standard error	<i>p</i> value
PL	1.276**	0.410	.002
PL*Gender	-0.180	0.408	.658
Constant	211.198***	0.298	<.001
<i>N</i>	4,496		

Note. ** $p < .01$; *** $p < .001$.

Table B6

SPED Subgroup Analysis of Progress Learning Impacts on Spring 2024 STAAR Math Scores

Variable	Estimate	Standard error	<i>p</i> value
PL	17.367***	4.635	<.001
PL*SPED	-17.423*	7.641	.023
Constant	1621.045***	6.016	<.001
<i>N</i>	3,005		

Note. * $p < .05$; *** $p < .001$.

Table B7

Gender Subgroup Analysis of Progress Learning Impacts on Spring 2024 STAAR Math Scores

Variable	Estimate	Standard error	<i>p</i> value
PL	12.447*	5.210	.017
PL*Gender	3.220	8.142	.692
Constant	1621.709***	5.889	<.001
<i>N</i>	3,005		

Note. * $p < .05$; *** $p < .001$.

Table B8

ELL Subgroup Analysis of Progress Learning Impacts on Spring 2024 STAAR Math Scores

Variable	Estimate	Standard error	<i>p</i> value
PL	16.377***	4.518	<.001
PL*ELL	-12.685	8.614	.141
Constant	1621.489***	5.929	<.001



<i>N</i>	3,005
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Note. *** $p < .001$.

Table B9

Ethnicity Subgroup Analysis of Progress Learning Impacts on Spring 2024 STAAR Math Scores

Variable	Estimate	Standard error	p value
PL	19.748**	6.328	.002
PL*Hispanic	-9.802	8.615	.255
PL*Black	-7.266	7.418	.327
Constant	1621.622***	5.939	<.001
<i>N</i>	3,005		

Note. ** $p < .01$; *** $p < .001$.

Table B10

Grade Level Subgroup Analysis of Progress Learning Impacts on STAAR Math Scores

Variable	Estimate	Standard error	p value
PL (Grade 6)	15.500*	6.379	.015
PL*Grade 4	-3.386	10.806	.754
PL*Grade 5	-1.849	8.526	.828
Constant	1621.869***	6.012	<.001
<i>N</i>	3,005		

Note. * $p < .05$; *** $p < .001$.



Appendix C: Full Reading Subgroup Regression Analyses

Table C1

SPED Subgroup Analysis of Progress Learning Impacts on Spring 2024 MAP Reading Scores

Variable	Estimate	Standard error	p value
PL	1.305***	0.313	<.002
PL*SPED	1.503	0.801	.061
Constant	205.489***	0.266	<.001
N	4,417		

Note. *** $p < .001$.

Table C2

Gender Subgroup Analysis of Progress Learning Impacts on Spring 2024 MAP Reading Scores

Variable	Estimate	Standard error	p value
PL	2.055***	0.421	<.001
PL*Gender	-0.989	0.552	.073
Constant	205.451***	0.272	<.001
N	4,417		

Note. *** $p < .001$.

Table C3

ELL Subgroup Analysis of Progress Learning Impacts on Spring 2024 MAP Reading Scores

Variable	Estimate	Standard error	p value
PL	1.552***	0.326	<.001
PL*ELL	-0.011	0.713	.988
Constant	205.458***	0.273	<.001
N	4,417		

Note. *** $p < .001$.

Table C4

Ethnicity Subgroup Analysis of Progress Learning Impacts on Spring 2024 MAP Reading Scores

Variable	Estimate	Standard error	p value
PL	1.597**	0.493	.001
PL*Hispanic	-0.087	0.647	.893
PL*Black	-0.060	0.643	.926
Constant	205.458***	0.274	<.001
N	4,417		



Note. ** $p < .01$; *** $p < .001$.

Table C5

Grade Level Subgroup Analysis of Progress Learning Impacts on MAP Reading Scores

Variable	Estimate	Standard error	p value
PL (Grade 6)	2.344***	0.545	<.001
PL*Grade 3	-0.374	0.813	.646
PL*Grade 4	-1.621	0.867	.061
PL*Grade 5	-1.083	0.730	.138
Constant	205.504***	0.276	<.001
N	4,417		

Note. *** $p < .001$.

Table C6

SPED Subgroup Analysis of Progress Learning Impacts on Spring 2024 STAAR ELA Scores

Variable	Estimate	Standard error	p value
PL	8.001	6.301	.204
PL*SPED	0.049	10.385	.996
Constant	1598.849***	4.085	<.001
N	2,922		

Note. *** $p < .001$.

Table C7

Gender Subgroup Analysis of Progress Learning Impacts on Spring 2024 STAAR ELA Scores

Variable	Estimate	Standard error	p value
PL	9.821	6.937	.157
PL*Gender	-3.561	6.449	.81
Constant	1598.814***	4.087	<.001
N	2,922		

Note. *** $p < .001$.

Table C8

ELL Subgroup Analysis of Progress Learning Impacts on Spring 2024 STAAR ELA Scores

Variable	Estimate	Standard error	p value
PL	8.854	5.276	.093
PL*ELL	-5.380	15.216	.724
Constant	1598.882***	4.075	<.001



<i>N</i>	2,922
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Note. *** $p < .001$.

Table C9

Ethnicity Subgroup Analysis of Progress Learning Impacts on Spring 2024 STAAR ELA Scores

Variable	Estimate	Standard error	p value
PL	-0.485	7.596	.949
PL*Hispanic	14.428	11.209	.198
PL*Black	11.784	8.588	.170
Constant	1598.943***	4.109	<.001
<i>N</i>	2,922		

Note. *** $p < .001$.

Table C10

Grade Level Subgroup Analysis of Progress Learning Impacts on STAAR ELA Scores

Variable	Estimate	Standard error	p value
PL (Grade 6)	-2.973	7.102	.676
PL*Grade 4	21.568	11.780	.067
PL*Grade 5	9.675	11.093	.383
Constant	1598.742***	3.949	<.001
<i>N</i>	2,922		

Note. *** $p < .001$.



Appendix D: Full Science Subgroup Regression Analyses

Table D1

SPED Subgroup Analysis of Progress Learning Impacts on Spring 2024 MAP Science Scores

Variable	Estimate	Standard error	p value
PL	1.038*	0.409	.011
PL*SPED	2.314	1.350	.086
Constant	209.436***	0.309	<.001
N	1,169		

Note. * $p < .05$; *** $p < .001$.

Table D2

Gender Subgroup Analysis of Progress Learning Impacts on Spring 2024 MAP Science Scores

Variable	Estimate	Standard error	p value
PL	1.758**	0.613	.004
PL*Gender	-0.774	0.900	.390
Constant	209.458***	0.321	<.001
N	1,169		

Note. ** $p < .01$; *** $p < .001$.

Table D3

ELL Subgroup Analysis of Progress Learning Impacts on Spring 2024 MAP Science Scores

Variable	Estimate	Standard error	p value
PL	1.497*	0.577	.010
PL*ELL	-0.485	1.252	.698
Constant	209.433***	0.312	<.001
N	1,169		

Note. * $p < .05$; *** $p < .001$.

Table D4

Ethnicity Subgroup Analysis of Progress Learning Impacts on Spring 2024 MAP Science Scores

Variable	Estimate	Standard error	p value
PL	0.504	0.653	.441
PL*Hispanic	1.804	0.995	.070
PL*Black	0.893	0.863	.301
Constant	209.424***	0.311	<.001
N	1,169		



Note. *** $p < .001$.

Table D5
SPED Subgroup Analysis of Progress Learning Impacts on Spring 2024 STAAR Science Scores

Variable	Estimate	Standard error	p value
PL	65.641	34.151	.055
PL*SPED	-44.12455	62.947	.483
Constant	3539.230***	26.358	<.001
<i>N</i>	1,178		

Note. *** $p < .001$.

Table D6
Gender Subgroup Analysis of Progress Learning Impacts on Spring 2024 STAAR Science Scores

Variable	Estimate	Standard error	p value
PL	68.935	36.678	.060
PL*Gender	-21.20642	44.657	.635
Constant	3539.201***	26.028	<.001
<i>N</i>	1,178		

Note. *** $p < .001$.

Table D7
ELL Subgroup Analysis of Progress Learning Impacts on Spring 2024 STAAR Science Scores

Variable	Estimate	Standard error	p value
PL	56.815*	25.772	.027
PL*ELL	8.170	55.264	.882
Constant	3539.244***	24.799	<.001
<i>N</i>	1,178		

Note. * $p < .05$; *** $p < .001$.

Table D8
Ethnicity Subgroup Analysis of Progress Learning Impacts on Spring 2024 STAAR Science Scores

Variable	Estimate	Standard error	p value
PL	29.041	61.860	.639
PL*Hispanic	85.354	60.206	.156
PL*Black	12.872	92.709	.890
Constant	3537.255***	25.340	<.001



<i>N</i>	1,178
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Note. *** $p < .001$.