

Curriculum Associates RESEARCH

i-Ready Stretch Growth[®] in Reading and Mathematics: How Does *i-Ready Personalized Instruction* Relate to Stretch Growth Attainment?

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Summary

Given pervasive and long-standing effects of the COVID-19 pandemic on student academic achievement, it is critical to identify avenues to accelerate growth. This involves providing targeted instruction to build prerequisite skills required to access grade-level content while setting ambitious targets for students to recover lost instructional time. The *i-Ready Diagnostic* provides the Stretch Growth metric, an individualized goal designed to be an ambitious but attainable target for reaching proficiency, while *i-Ready Personalized Instruction* (i.e., *i-Ready PI*) offers systematic, scaffolded, and targeted practice to address the skills students need most to move to grade level. In the current study, we evaluated if greater use of *i-Ready PI* increased a student's progress toward their Stretch Growth target. Overall, students are projected to meet more of, or demonstrate greater percent progress toward, their Stretch Growth goal with greater use of *i-Ready PI*.

Introduction

Previous research has repeatedly demonstrated the ability of *i-Ready*'s Stretch Growth metric to provide a path for moving students to grade-level proficiency, including students who are beginning well below grade level (Rome & Daisher, 2022; Rome & Daisher, 2023; Curriculum Associates, 2023a). Understanding practices that aid in attaining Stretch Growth is a critical next step for identifying ways to recover unfinished learning. Earlier research has identified *i-Ready* PI as an evidence-based tool for supplemental instruction (Cook & Ross, 2022; Curriculum Associates, 2022; Curriculum Associates, 2020). When used as recommended, students demonstrate significant gains over peers on high-stakes test (Holzman & Duncan, 2023). Previous work in this series examined *i-Ready* PI usage among students who did and did not meet Stretch Growth as well as explored the percentage of students reaching Stretch Growth when *i-Ready* PI was used as recommended (Curriculum Associates, 2023b). Initial descriptive analyses revealed students who met Stretch Growth targets generally used *i-Ready* PI for more time and completed more lessons. There were also higher rates of students achieving Stretch Growth when using *i-Ready* PI as recommended (Curriculum Associates, 2023b). To build on this research, in the current study, we explored to what degree *i-Ready* PI usage improves student performance on their Stretch Growth goals.

Given the clustered nature of our data (i.e., students nested within schools), this study employed a hierarchical linear modeling (HLM) approach (Raudenbush & Bryk, 2002) to investigate the relation between use of *i-Ready* PI and student growth on the *i-Ready Diagnostic*. The primary focus was to explore how student use of *i-Ready* PI contributes to meeting their Stretch Growth target, measured by percent progress toward Stretch Growth, in Year 1 (Y1) and Year 2 (Y2) of the study.

Research Methodology

Research Questions

This study addresses the following research questions:

1. Does use of *i-Ready* PI help students achieve their Stretch Growth targets in reading and mathematics? Specifically, how does variation in the average weekly time, the number of distinct weeks, and the number of unique lessons completed in *i-Ready* PI relate to the percent progress toward Stretch Growth?
2. Does the impact of *i-Ready* PI usage on the percent progress toward Stretch Growth differ among students who are placed into (a) Two or More Grade Levels Below, (b) One Grade Level Below, or (c) Early On or Above Grade Level, at the beginning of the school year?

Sample

The study used data from students who completed the *i-Ready Diagnostic* for Reading or for Mathematics during the fall and spring testing windows of the 2021–2022 (Y1) and 2022–2023 (Y2) school years. Students were in Grades K–7 in Y1 and Grades 1–8 in Y2. Students were included if they attended a school with at least five students per grade level and school year, and if they had

completed at least one *i-Ready* PI online lesson between their fall and spring Diagnostics each year. These parameters yielded a sample of 2,486,949 students within 13,869 schools in Y1 and 14,046 in Y2 for reading and 3,028,303 students within 16,104 schools in Y1 and 16,249 in Y2 for mathematics. The study sample is described in detail in a previous research brief (Curriculum Associates, 2023a).

i-Ready Growth Measures

The *i-Ready Diagnostic*, an online Grades K–12 assessment of reading and mathematics, classifies students into criterion-referenced placement levels based on their *i-Ready Diagnostic* overall scale score. An *i-Ready* Typical Growth target is the median scale score growth over the school year for students at a given grade and fall placement level. Stretch Growth sets an ambitious but attainable goal for student growth. It reflects the amount of growth needed for a student who is below grade level to be on a path toward attaining grade-level proficiency, or the amount of growth needed for a student who is on grade level to achieve advanced proficiency levels. Stretch Growth measures are based on observations of growth of a national sample of students who started at each placement level and achieved grade-level proficiency over time. Stretch Growth measures represent well-above average growth but do not exceed the 80th percentile of growth, for students in a given placement, ensuring they remain attainable for students with additional instructional support and effort.

i-Ready Personalized Instruction

Online lessons in *i-Ready* PI provide students with opportunities to receive explicit reading or mathematics instruction, systematic practice, and scaffolded feedback across a full scope of Grades K–8 content standards (Curriculum Associates, 2023b). *i-Ready* PI provides usage guidelines to educators, who are then encouraged to give their students opportunities to spend 30–49 minutes per week, per subject in *i-Ready* PI consistently across the school year (i.e., at least 18 distinct weeks of usage across the year). *i-Ready* PI does not provide usage guidelines regarding the number of lessons to complete given varying lesson lengths, and the time to complete lessons is heavily influenced by student grade and placement level. Nonetheless, unique lessons may help contextualize the standards and content mastered by students (Holzman & Duncan, 2023). Accordingly, we included unique lessons as a predictor. It is possible that a student may work on the same *i-Ready* PI lesson more than once in a school year. This would occur if a student received less than 67% on the quiz associated with the lesson or if a teacher assigns an *i-Ready* PI lesson the student has already completed. In this study, we examine the number of unique lessons completed in relation to percent progress toward Stretch Growth. Repeated lessons, or simply the total number of completed lessons, are not included in the analyses.

Analyses

We conducted separate analyses by subject (i.e., reading and mathematics), grade cohort (K–7 and 1–8), and school year (Y1 and Y2). All HLM analyses were conducted with lme4 version 1.1–34 (Bates et al., 2015) in R version 4.1.3 (R Core Team, 2021).

To address our research question, we took a two-stage procedure for estimating the percent progress toward Stretch Growth as the outcome to compare across different levels of *i-Ready* PI usage. First, we formulated a two-level random-intercept model (students nested within schools) with the spring *i-Ready Diagnostic* score as an outcome and estimated its model parameters using restricted maximum likelihood. We constructed two separate HLM models, one with the number of distinct weeks and the average weekly Time-on-Task (in minutes) and the other with the number of unique lessons completed, to avoid collinearity; the number of unique lessons were highly correlated with the other two *i-Ready* PI variables, ranging from .56 to .82 with a mean value of .71 for reading and from .60 to .81 with a mean value of .73 for mathematics. The number of distinct weeks and the average weekly minutes could be deemed a set of variables that addresses consistent usage (i.e., regular usage with sufficient dosage). Each model included the fall Diagnostic scale score and days elapsed between the fall and spring Diagnostics. The model is formally expressed as:

Level 1 (student):

$$\text{DW} + \text{AWT}: \quad SS_{ij} = \beta_{0j} + \beta_{1j}(\text{DW}_{ij}) + \beta_{2j}(\text{AWT}_{ij}) + \beta_{3j}(\text{FS}_{ij}) + \beta_{4j}(\text{DAYS}_{ij}) + e_{ij}$$

$$\text{UL}: \quad SS_{ij} = \beta_{0j} + \beta_{1j}(\text{UL}_{ij}) + \beta_{2j}(\text{FS}_{ij}) + \beta_{3j}(\text{DAYS}_{ij}) + e_{ij}$$

Level 2 (school):

DW + AWT:

$$\beta_{0j} = \gamma_{00} + u_{0j}$$

$$\beta_{1j} = \gamma_{10}$$

...

$$\beta_{4j} = \gamma_{40}$$

UL:

$$\beta_{0j} = \gamma_{00} + u_{0j}$$

$$\beta_{1j} = \gamma_{10}$$

...

$$\beta_{3j} = \gamma_{30}$$

SS_{ij} is the spring *i-Ready Diagnostic* score i in school j . β_{0j} is the expected outcome for students in school j . Other β parameters capture the effects of the following covariates:

- DW_{ij} is the number of distinct weeks student i in school j spent on *i-Ready* PI
- AWT_{ij} is the average weekly minutes student i in school j spent on *i-Ready* PI (average Time-on-Task)
- UL_{ij} is the number of *i-Ready* PI unique lessons student i in school j completed
- FS_{ij} is the fall *i-Ready Diagnostic* score for student i in school j to be controlled for
- DAYS_{ij} is the number of days between fall and spring Diagnostic completion dates to be controlled for

No covariates were included in the level 2 model. We applied grand-median centering to those continuous variables (i.e., UL, DW, AT, UL, FS, and DAYS) for meaningful interpretation.

The second stage involved several steps for estimating the percent progress toward Stretch Growth. First, we defined low, medium, and high usage of *i-Ready* PI as the 20th percentile, 50th percentile, and 80th percentile of those *i-Ready* PI variables, respectively, for the current study sample. We also used the median fall Diagnostic scores of the fall placement levels to represent students who were placed into Early On or Above Grade Level, One Grade Level Below, and Two or More Grade Levels Below at the beginning of the school year¹. Given this set of parameter values, we derived the spring Diagnostic score from the model, calculated the growth score by subtracting the median fall Diagnostic score from the estimated spring score, and then estimated the percent value toward Stretch Growth by dividing the growth score by the respective Stretch Growth target. This measure of percent progress toward Stretch Growth served as the outcome.

Results

Aligned with the first two reports in this research series (Curriculum Associates, 2023a; 2023b), we chose to spotlight Grades 2–3 in reading and Grades 4–5 in mathematics in the body of the report. Given consistent patterns in both usage and increases in percent progress toward Stretch Growth between Y1 and Y2 results, narrative results focus on findings from Y2, the most recent school year's data (2022–2023). See the appendix for results from Y1 (2021–2022).

Reading

***i-Ready* PI Usage and Progress toward Stretch Growth.** Table 1 summarizes the usage values representing low, medium, and high usage (20th, 50th, and 80th percentile, respectively) of *i-Ready* PI based on usage within the current sample, measured by weekly Time-on-Task and distinct weeks or unique lessons completed. In Grade 3, the median usage followed *i-Ready* recommended guidelines, with 36 minutes per week across 25 weeks (Table 1). At this usage, students are projected to reach 68%, 85%, and 69% (26.9, 34, 42.8 scale score point growth) of their Stretch Growth target based on placement level: Two or More Grade Levels Below, One Grade Level Below, or Early On or Above Grade Level, respectively (Figure 1). If students spent only 16 weeks and 24 minutes weekly (20th percentile values), they were projected to reach 65%, 78%, and 62% of their Stretch Growth targets (for two below, one below, or early on, respectively). By contrast, if students increased their usage time to 30 weeks and 48 minutes, they were projected to reach 71%, 90%, and 74% of their Stretch Growth targets (for two below, one below, or early on, respectively). When evaluating unique lessons, we see slightly greater increases in the progress toward Stretch Growth as students complete more unique lessons, compared to the first model, regardless of placement level (Figure 1). This suggests there may be a stronger association between unique lessons and Stretch Growth attainment than the combination of weekly Time-on-Task and distinct weeks and Stretch Growth attainment. Regardless of usage variable, there are significant increases in the progress toward Stretch Growth by students as their use of *i-Ready* PI increases.

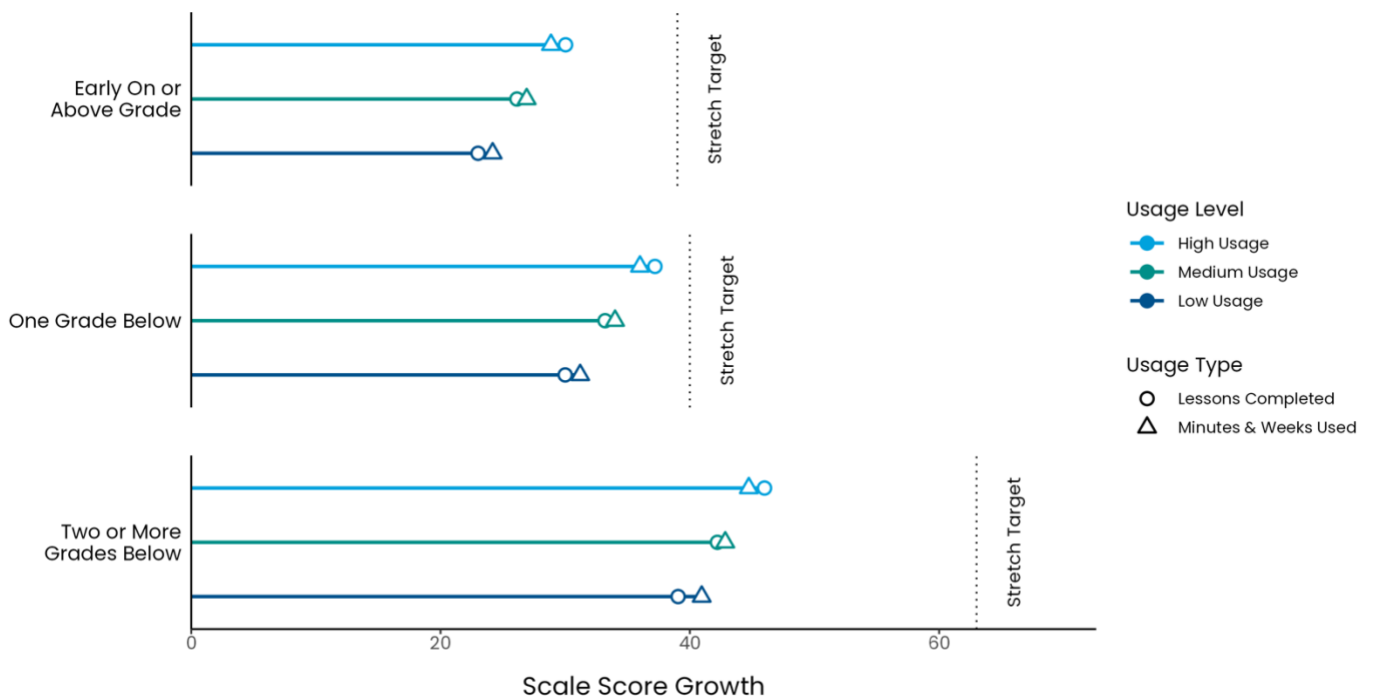
¹Given the collapsed placement levels used (three instead of five placement levels), occasionally the median fall Diagnostic score fell just above or below one of the collapsed placement levels (e.g., the median score that represents students in Early On or Above Grade Level may fall into Mid On or Above Grade Level rather than Early On Grade Level, or vice versa), changing the Stretch Growth target for that entire group. Percent progress toward Stretch Growth is measured based on the Stretch Growth target for that median scale score value and does not always reflect the Stretch Growth target for all students in that placement group.

Table 1: Usage Values for Average Weekly Time, Distinct Weeks, and Unique Lessons Completed for Low, Medium, and High Usage of *i-Ready* PI—Grade 3 Reading

Year	Grade	Usage Threshold	Usage Value	Average Weekly Time	Distinct Weeks	Unique Lessons
Y2	3	Low	20th Percentile	24	16	15
		Medium	50th Percentile	36	25	33
		High	80th Percentile	51	30	58

Note. Usage value represents the 20th, 50th, and the 80th percentile of usage for each variable in the sample. Average weekly time is rounded to the nearest whole number.

Figure 1. Progress toward Stretch Growth by Usage Threshold and Placement Level—Grade 3 Reading

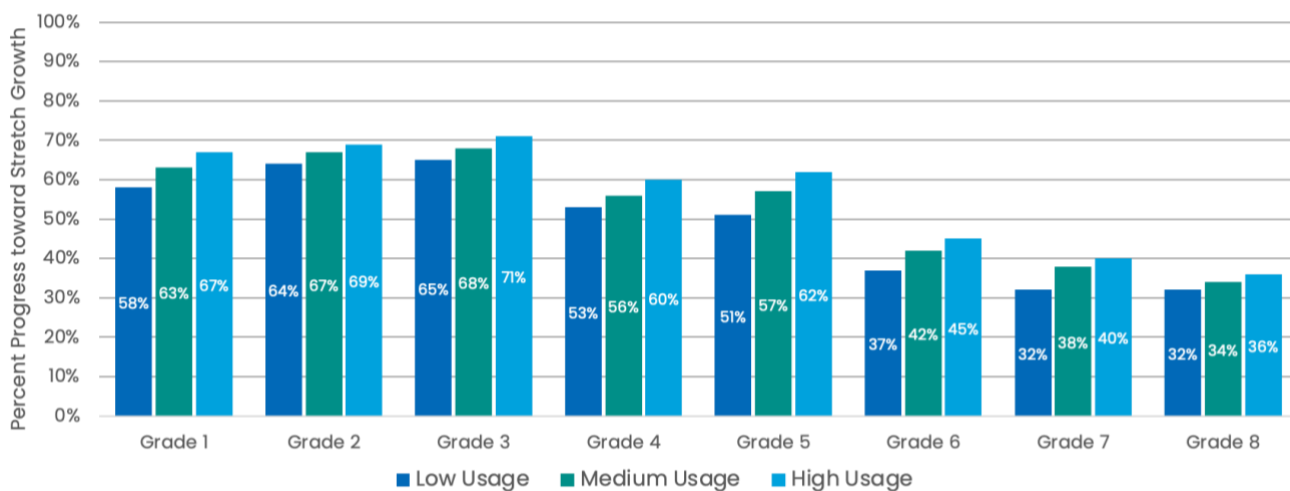


Note. Students Two or More Grade Levels Below typically have larger (i.e., greater scale score) Stretch Growth targets, as the path to grade-level proficiency is longer for these students given their current placement relative to grade level.

These trends held across all other cohorts, with some notable differences in the magnitude of these changes in certain grades. For example, in some grades and placement levels, increasing usage by 20 minutes per week and for six more weeks a year (moving from the 20th to the 80th percentile of usage) was associated with a 34% increase in the amount of Stretch Growth reached (Table A1). In other grades, however, we see much smaller effects of increasing *i-Ready* PI usage. In Grades 7 and 8, weekly Time-on-Task was not significantly related to the percent progress toward Stretch Growth in Y2 (Table A2). Distinct weeks, however, remained significantly related to student growth. It is worth noting that even though variables remained significantly related to the outcome, the magnitude of these changes may be very small and only provide slight improvement toward Stretch Growth attainment for some grades or placement levels (Tables A1–A4).

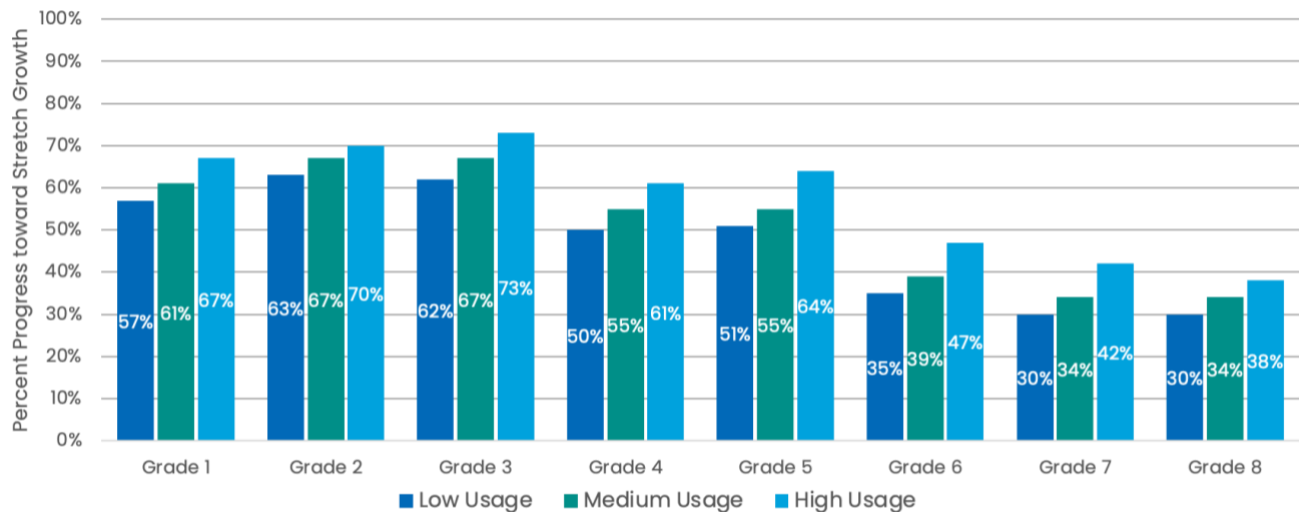
Progress toward Stretch Growth by Placement Level. When evaluating trends in Stretch Growth attainment by placement level, it appears the overall progress toward Stretch Growth and increases in this growth by usage threshold varied across fall placement levels. Students Two or More Grades Below demonstrated smaller increases in their percent progress toward Stretch Growth with each increasing usage threshold (see Appendix). Though there seems to be some variation in the percent increases, there is a consistent pattern across all placement levels. Figures 2 and 3 demonstrate how—despite smaller increases in the percent progress toward Stretch Growth compared to other placement levels—across all grade levels, students Two or More Grades Below still see consistent increases in the percent progress toward Stretch Growth with increased *i-Ready* PI usage.

Figure 2. Percent Progress toward Stretch Growth by Usage Threshold (Weekly Time-on-Task and Distinct Weeks) and Grade for Students Two or More Grades Below—Reading



Note. All students began Y1 Two or More Grade Levels Below. i-Ready usage was measured by weekly Time-on-Task and weeks per school year.

Figure 3. Percent Progress toward Stretch Growth by Usage Threshold (Unique Lessons) and Grade for Students Two or More Grades Below—Reading



Note. All students began Y1 Two or More Grade Levels Below. i-Ready usage was measured by the number of unique lessons completed in one year.

Mathematics

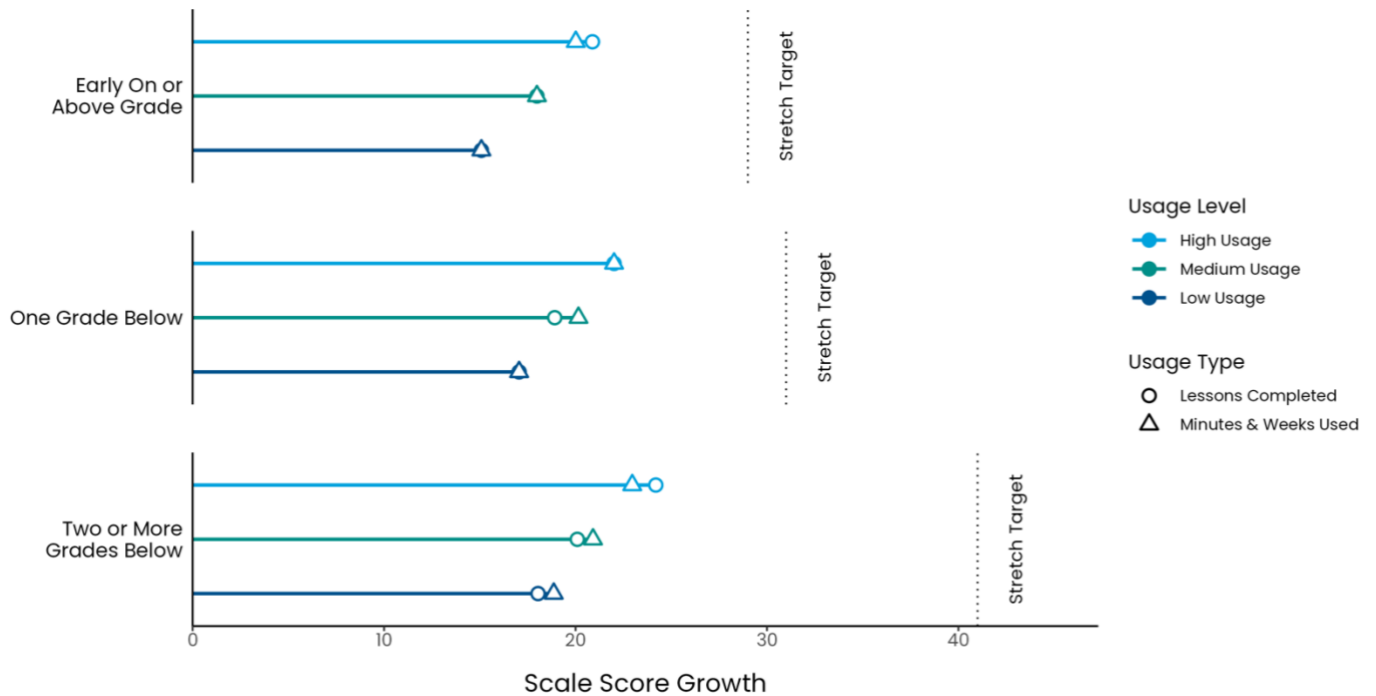
i-Ready PI Usage and Progress toward Stretch Growth. Table 2 reveals that, similar to reading, students in Grades 4–5 mathematics, on average, used *i-Ready* PI as recommended (median value: 40 minutes per week, 24 weeks per year). At this usage, the corresponding progress toward Stretch Growth is 51%, 65%, and 62% (18, 20.2, and 20.9 scale score point growth) for students Two or More Grades Below, One Grade Below, or Early On or Above Grade, respectively (Figure 4). If students increase their usage of *i-Ready* PI, there is a corresponding increase in their progress toward meeting Stretch Growth targets. This effect was slightly larger when examining the number of unique lessons (Figure 4), suggesting a stronger association with Stretch Growth attainment.

Table 2: Usage Values for Average Weekly Time, Distinct Weeks, and Unique Lessons Completed for Low, Medium, and High Usage of *i-Ready* PI—Grade 5 Mathematics

Year	Grade	Usage Threshold	Usage Value	Average Weekly Time	Distinct Weeks	Unique Lessons
Y2	5	Low	20th Percentile	26	14	12
		Medium	50th Percentile	40	24	27
		High	80th Percentile	58	30	49

Note. Usage value represents the 20th, 50th, and the 80th percentile of usage for each variable in the sample. Average weekly time is rounded to the nearest whole number.

Figure 4. Progress toward Stretch Growth by Usage Threshold and Placement Level—Grade 5 Mathematics

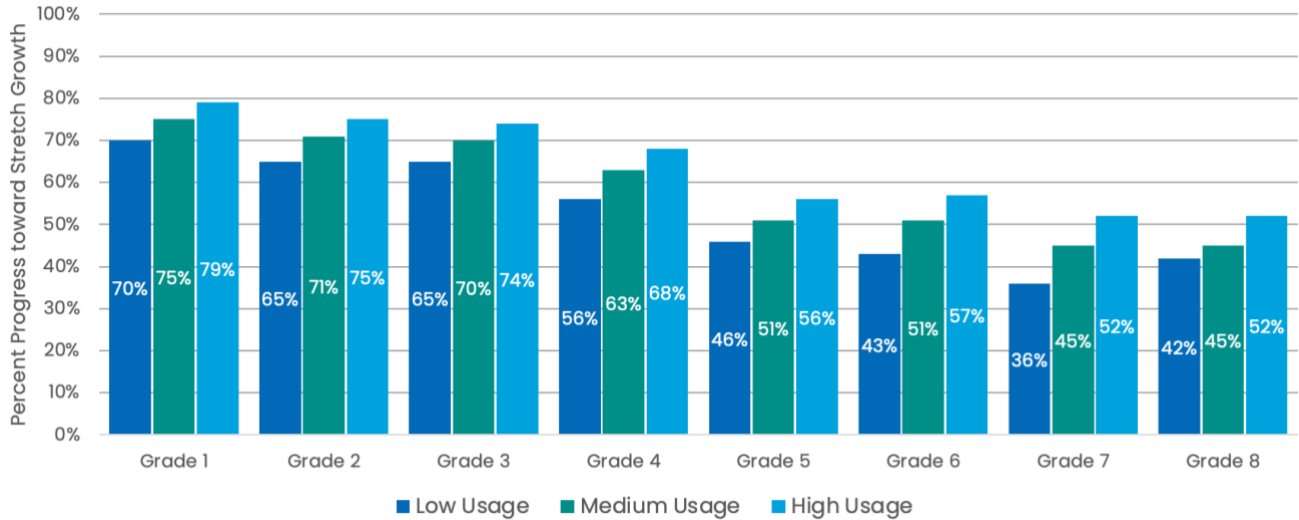


Other grade cohorts demonstrated similar tendencies (Tables A5–A8). While all variables significantly increased the progress toward Stretch Growth across all grades, the magnitude of this effect (i.e., the percent increases by usage threshold) varied by grade, placement level, and instruction variable (i.e., Time-on-Task and distinct weeks versus unique lessons). Similar to reading, unique lessons typically demonstrated the strongest effect on the progress toward Stretch Growth across all grades.

Progress toward Stretch Growth by Placement Level. Examining usage and corresponding growth by placement level in mathematics, as in reading, both overall relative progress toward Stretch Growth and percent increases by usage threshold vary by fall placement levels. In the spotlight cohort (i.e., Grades 4–5), the percent increases by usage threshold are largely similar, with small differences among students Two or More Grades Below, suggesting the effect of these variables on meeting Stretch Growth may vary slightly based on placement levels. That is, the effect of completing more lessons (or spending more time in *i-Ready* PI) on the progress toward Stretch Growth may be reduced for this group compared to students Early On or Above Grade.

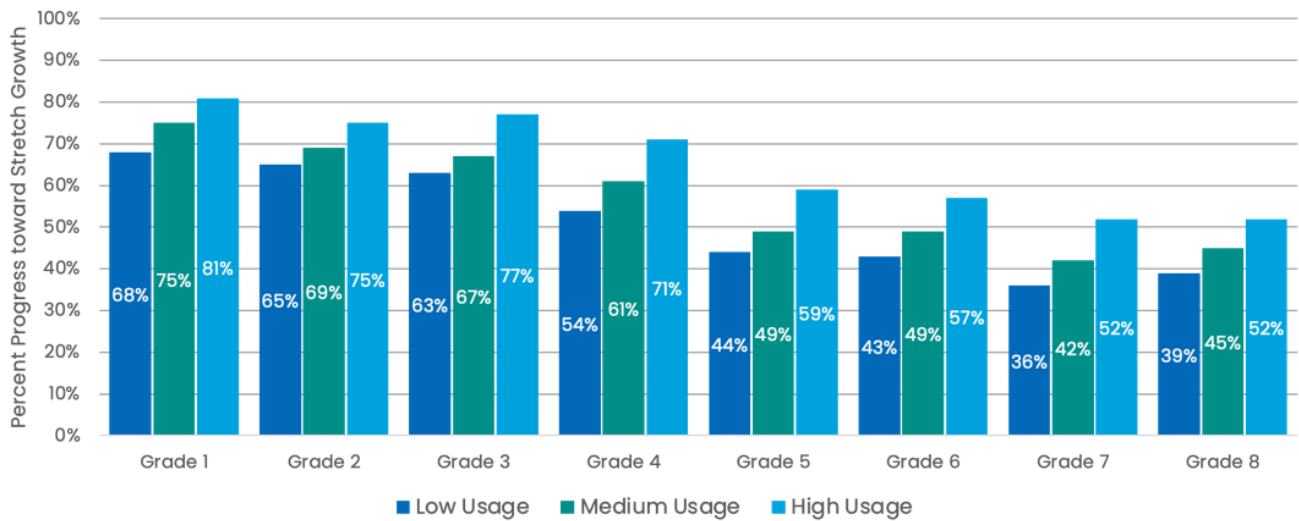
Examining other grade cohorts, the impact of *i-Ready* PI usage variables on progress toward Stretch Growth varied by placement level as well. As in reading, we see differences in the percent increases by placement level, with students Two or More Grades Below typically demonstrating smaller increases with each increasing usage threshold. Nonetheless, the pattern (i.e., consistent increases to the percent progress toward Stretch Growth with increased usage) held steady for these students (Figures 5 and 6).

Figure 5. Percent Progress toward Stretch Growth by Usage Threshold (Weekly Time-on-Task and Distinct Weeks) and Grade for Students Two or More Grades Below—Mathematics



Note. All students began Y1 Two or More Grade Levels Below. i-Ready usage was measured by weekly Time-on-Task and weeks per school year.

Figure 6. Percent Progress toward Stretch Growth by Usage Threshold (Unique Lessons) and Grade for Students Two or More Grades Below—Mathematics



Note. All students began Y1 Two or More Grade Levels Below. i-Ready usage was measured by the number of unique lessons completed in one year.

Conclusion

The current study evaluated the relation between use of *i-Ready* PI and progress toward Stretch Growth goals in one year for students who were in Grades K–8 across two study years: 2021–2023, within an HLM framework (Raudenbush & Bryk, 2002). We found across grades and all placement levels, unique lessons completed was significantly related to the progress toward Stretch Growth met. As students completed more lessons in *i-Ready* PI, the percent of their Stretch Growth goal met increased. This trend held mostly true for the other instruction variables. Weekly Time-on-Task was significantly related to the percent of Stretch Growth met for all groups in mathematics, and for Grades K–6 in reading. Students in Grades 7 and 8 in Y2 did not see an increase in the percent of their Stretch Growth target met in reading with more weekly Time-on-Task. Generally, in both subjects, the overall progress toward Stretch Growth was reduced for middle school students. By middle school, students may have years of compounded gaps in learning, creating challenges making accelerated growth to reach grade level. *i-Ready* PI may still be a valuable resource for increasing the percent toward Stretch Growth for middle school students, but given smaller growth in middle school students, we see reduced impacts of instruction.

Results indicate that consistent use of *i-Ready* PI may increase the progress toward Stretch Growth targets, and this is strongest when consistent usage is measured through the lessons completed. Though *i-Ready* PI lessons may vary in length and time to complete based on student placement level and grade, unique lessons as a variable may serve to contextualize the content covered by students. In some grade and subject combinations, the percent increases appear small, but in most cases, these may still be practically significant for student outcomes. For students well below grade level, who are in most need of achieving accelerated growth, *i-Ready* PI is likely not the only intervention or instructional support they may be receiving. Many other instructional practices may aid attainment of Stretch Growth. These practices, in combination, may help move the needle for students the furthest behind. Results indicate *i-Ready* PI may be one of these instructional practices that provide small but significant and incremental increases to the percent progress toward Stretch Growth.

Though the use of *i-Ready* PI appeared to benefit students across placement levels, the effect of instruction on reaching Stretch Growth varied. That is, completing *i-Ready* PI lessons increased the progress toward Stretch Growth at different rates depending on student placement levels. Generally, students Two or More Grades Below demonstrated the smallest percent increases in Stretch Growth attainment with greater usage. Students would have to complete more lessons than their grade-level peers to experience the same increase toward reaching Stretch Growth. These trends are expected, as the effect of *i-Ready* PI lessons are likely diminished for students who require the most support to achieve ambitious growth targets. Nonetheless, increased use of *i-Ready* PI still significantly increased student projected progress toward Stretch Growth targets for below-grade level learners. While the percent increases in progress toward Stretch Growth varied, patterns of improvement were consistent across grades, subjects, and placement levels.

Limitations

Though this research offers insights into instructional practices that may aid Stretch Growth attainment, there is limited information regarding the mechanisms by which these improvements occur. There are many student- or classroom-level factors that could influence a student's attainment of their Stretch Growth target that were not measured in the current study. While *i-Ready* PI usage data provides information regarding dosage, simply evaluating dosage (in minutes, weeks, or lessons) masks variability in implementation and student experience. Factors such as if *i-Ready* PI is used as a supplemental tool or classwide support or student engagement within lessons could all impact the amount of growth achieved.

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Appendix

Table A1. Percent Progress toward Stretch Growth by Usage Threshold (Weekly Time-on-Task and Distinct Weeks), Grade, and Placement Level—Reading: Year 1

Grade	Usage Threshold			Fall Placement Level		
	Name	Value		Two or More Grades Below	One Grade Below	Early On or Above Grade
		Weekly Time-on-Task	Distinct Weeks			
K	Low	20	13	N/A	73	57
	Medium	34	22	N/A	82	68
	High	49	28	N/A	90	75
1	Low	23	16	55	69	86
	Medium	37	25	60	76	98
	High	52	30	65	81	105
2	Low	24	16	58	74	111
	Medium	38	25	63	79	122
	High	53	30	65	85	133
3	Low	24	15	62	78	62
	Medium	37	24	65	83	69
	High	53	29	68	88	72
4	Low	24	13	52	61	75
	Medium	37	23	56	69	90
	High	52	29	60	75	100
5	Low	24	12	53	53	40
	Medium	37	22	60	63	52
	High	52	28	64	70	60
6	Low	24	10	35	42	33
	Medium	36	20	41	50	53
	High	51	27	47	62	67
7	Low	24	9	32	32	13
	Medium	35	18	36	40	22
	High	49	25	40	48	35

Table A2. Percent Progress toward Stretch Growth by Usage Threshold (Weekly Time-on-Task and Distinct Weeks), Grade, and Placement Level—Reading: Year 2

Grade	Usage Threshold			Fall Placement Level		
	Name	Value		Two or More Grades Below	One Grade Below	Early On or Above Grade
		Weekly Time-on-Task	Distinct Weeks			
1	Low	26	19	58	73	98
	Medium	39	26	63	79	107
	High	54	31	67	85	114
2	Low	24	18	64	81	79
	Medium	37	26	67	85	86
	High	52	31	69	89	91
3	Low	25	16	65	78	62
	Medium	37	25	68	85	69
	High	52	30	71	90	74
4	Low	24	14	53	64	75
	Medium	37	24	56	72	90
	High	52	29	60	75	95
5	Low	25	13	51	53	40
	Medium	37	23	57	63	52
	High	52	29	62	70	60
6	Low	23	10	37	42	33
	Medium	35	21	43	50	53
	High	50	27	45	58	60
7	Low	22	9	32	32	21
	Medium	33	19	38	44	36
	High	47	26	40	48	50
8	Low	22	7	32	28	15
	Medium	32	16	34	36	23
	High	46	24	36	40	38

Table A3. Percent Progress toward Stretch Growth by Usage Threshold (Unique Lessons Completed), Grade, and Placement Level—Reading: Year 1

Grade	Usage Threshold		Fall Placement Level		
	Name	Value (Unique Lessons)	Two or More Grades Below	One Grade Below	Early On or Above Grade
K	Low	23	N/A	70	52
	Medium	45	N/A	81	63
	High	75	N/A	94	77
1	Low	24	54	67	84
	Medium	51	59	75	95
	High	81	66	82	107
2	Low	24	58	72	107
	Medium	49	62	79	122
	High	77	67	85	133
3	Low	19	59	73	59
	Medium	40	63	80	67
	High	67	70	90	77
4	Low	16	50	61	70
	Medium	35	55	67	85
	High	61	60	78	105
5	Low	13	51	50	36
	Medium	31	55	60	48
	High	56	64	73	64
6	Low	10	35	38	33
	Medium	25	39	46	47
	High	46	47	62	73
7	Low	8	30	28	13
	Medium	20	34	40	22
	High	39	40	52	35

Table A4. Percent Progress toward Stretch Growth by Usage Threshold (Unique Lessons Completed), Grade, and Placement Level—Reading: Year 2

Grade	Usage Threshold		Fall Placement Level		
	Name	Value (Unique Lessons)	Two or More Grades Below	One Grade Below	Early On or Above Grade
1	Low	28	57	73	95
	Medium	52	61	79	105
	High	80	67	85	116
2	Low	22	63	79	79
	Medium	45	67	83	84
	High	72	70	89	91
3	Low	19	62	75	59
	Medium	39	67	83	67
	High	65	73	93	77
4	Low	16	50	58	65
	Medium	35	55	67	80
	High	60	61	78	100
5	Low	14	51	50	36
	Medium	32	55	60	48
	High	57	64	73	60
6	Low	10	35	35	20
	Medium	26	39	46	40
	High	49	47	62	67
7	Low	8	30	28	14
	Medium	22	34	36	29
	High	43	42	52	50
8	Low	7	30	24	8
	Medium	20	34	32	23
	High	35	38	44	46

Table A5. Percent Progress toward Stretch Growth by Usage Threshold (Weekly Time-on-Task and Distinct Weeks), Grade, and Placement Level—Mathematics: Year 1

Grade	Usage Threshold			Fall Placement Level		
	Name	Value		Two or More Grades Below	One Grade Below	Early On or Above Grade
		Weekly Time-on-Task	Distinct Weeks			
K	Low	20	12	N/A	79	47
	Medium	30	21	N/A	92	61
	High	44	27	N/A	100	71
1	Low	21	15	67	70	47
	Medium	32	24	74	78	56
	High	47	30	79	86	66
2	Low	21	15	65	64	46
	Medium	34	25	69	72	54
	High	48	30	73	78	60
3	Low	23	15	65	69	62
	Medium	36	24	72	77	71
	High	51	29	77	83	76
4	Low	25	14	59	62	58
	Medium	38	24	66	71	67
	High	54	29	71	79	76
5	Low	26	13	44	55	52
	Medium	40	23	54	65	62
	High	58	29	59	71	72
6	Low	27	11	40	54	52
	Medium	41	21	51	65	64
	High	60	28	60	77	76
7	Low	27	9	33	39	36
	Medium	40	19	42	57	55
	High	60	26	52	65	64

Table A6. Percent Progress toward Stretch Growth by Usage Threshold (Weekly Time-on-Task and Distinct Weeks), Grade, and Placement Level—Mathematics: Year 2

Grade	Usage Threshold		Fall Placement Level			
	Name	Value		Two or More Grades Below	One Grade Below	Early On or Above Grade
		Weekly Time-on-Task	Distinct Weeks			
1	Low	23	19	70	78	53
	Medium	35	26	75	86	61
	High	49	31	79	92	67
2	Low	22	17	65	67	51
	Medium	34	26	71	75	57
	High	48	31	75	81	63
3	Low	24	16	65	69	65
	Medium	36	25	70	77	74
	High	51	30	74	83	79
4	Low	25	16	56	62	58
	Medium	38	25	63	71	67
	High	55	30	68	76	76
5	Low	26	14	46	55	52
	Medium	40	24	51	65	62
	High	58	30	56	71	69
6	Low	27	11	43	54	56
	Medium	41	22	51	65	68
	High	61	28	57	73	76
7	Low	26	9	36	48	45
	Medium	40	20	45	61	59
	High	60	27	52	70	68
8	Low	26	8	42	50	43
	Medium	39	17	45	55	52
	High	59	25	52	64	62

Table A7. Percent Progress toward Stretch Growth by Usage Threshold (Unique Lessons Completed), Grade, and Placement Level—Mathematics: Year 1

Grade	Usage Threshold		Fall Placement Level		
	Name	Value (Unique Lessons)	Two or More Grades Below	One Grade Below	Early On or Above Grade
K	Low	13	N/A	77	42
	Medium	29	N/A	87	53
	High	56	N/A	105	71
1	Low	18	67	68	41
	Medium	40	72	76	53
	High	68	81	89	66
2	Low	18	63	64	43
	Medium	39	69	72	51
	High	64	75	81	60
3	Low	15	63	66	59
	Medium	33	70	74	68
	High	57	79	83	76
4	Low	14	56	62	58
	Medium	31	63	68	67
	High	53	73	79	76
5	Low	12	44	52	52
	Medium	27	51	61	62
	High	46	59	71	72
6	Low	8	40	54	52
	Medium	20	46	62	64
	High	38	57	73	76
7	Low	6	33	43	41
	Medium	16	39	52	50
	High	32	48	65	64

Table A8. Percent Progress toward Stretch Growth by Usage Threshold (Unique Lessons Completed), Grade, and Placement Level—Mathematics: Year 2

Grade	Usage Threshold		Fall Placement Level		
	Name	Value (Unique Lessons)	Two or More Grades Below	One Grade Below	Early On or Above Grade
1	Low	23	68	76	47
	Medium	45	75	84	58
	High	71	81	95	67
2	Low	19	65	67	49
	Medium	39	69	72	57
	High	64	75	81	66
3	Low	15	63	69	62
	Medium	33	67	74	71
	High	58	77	83	79
4	Low	14	54	59	58
	Medium	32	61	68	67
	High	55	71	79	76
5	Low	12	44	55	52
	Medium	27	49	61	62
	High	49	59	71	72
6	Low	8	43	54	56
	Medium	21	49	62	64
	High	39	57	73	76
7	Low	6	36	48	45
	Medium	17	42	57	55
	High	34	52	70	68
8	Low	5	39	50	43
	Medium	15	45	55	52
	High	29	52	64	62