

# RESEARCH RESULTS

## *Read 180*: Miami-Dade County Public Schools

### STUDY PROFILE

#### DISTRICT:

Miami-Dade County Public Schools, Miami, Florida

#### GRADES:

6–12

#### STUDY DESIGN:

Promising (ESSA)<sup>1</sup>

#### EVALUATION PERIOD:

2022–2023 school year

#### STUDY CONDUCTED BY:

Forge Research Group

#### OUTCOME MEASURES:

- HMH *Reading Inventory*
- Florida Assessment of Student Thinking (FAST)
- Florida Standards Assessment (FSA)

#### IMPLEMENTATION:

50-Minute Single Period Model daily or  
90-Minute Double Period Model 2–3 times a week

### DISTRICT CHARACTERISTICS

Miami-Dade County Public Schools (M-DCPS), located in Miami, Florida, is the 3<sup>rd</sup> largest school district in the United States. As of the October 2022 count, M-DCPS was serving 335,725 full-time equivalent PK–12<sup>th</sup>-grade students at 525 schools<sup>2</sup>. These students had a range of ethnic backgrounds: African American (17.6%), Asian or Pacific Islander (1.1%), White (6.2%), Hispanic or Latino (74.4%), Native American (<1%), other (<1%), and students with multiple ethnic backgrounds (<1%). As of the October 2022 count, 51% of students were male and 49% were female, 56.1% of students in the district were socio-economically disadvantaged (eligible for free or reduced-priced lunch), 20.3% were English learners (EL), and 12.1% were classified as Students with Disabilities (SWD). Sixth- through twelfth-grade M-DCPS students attended high schools, middle schools, K–8<sup>th</sup> grade centers, combination schools, and virtual academies.

### IMPLEMENTATION OVERVIEW

#### IMPLEMENTATION MODEL

M-DCPS students in grades 6 to 12 were identified as struggling with reading comprehension if they met at least 1 of these criteria: end-of-year Florida Assessment of Student Thinking (FAST) English Language Arts (ELA) performance levels of 1 or 2 (below grade-level proficiency) or beginning of year *iReady*<sup>®</sup> performance in the yellow or red zone (one or more grades below grade-level proficiency). These students were placed into the Houghton Mifflin Harcourt<sup>®</sup> (HMH<sup>®</sup>) *System 44*<sup>®</sup> Tier 3 intervention class if their *Phonics Inventory*<sup>®</sup> score indicated a need for remediation of foundational reading skills and into the HMH *Read 180*<sup>®</sup> Tier 2 intervention class if they demonstrated proficiency in foundational reading skills. *System 44* students progressed to *Read 180* after demonstrating

proficiency in foundational reading skills and *Read 180* students remained enrolled in *Read 180* until achieving a proficient performance level on the *Reading Inventory*<sup>®</sup>.

Students in the 6<sup>th</sup>–12<sup>th</sup> grades who were enrolled in *Read 180* received regular ELA instruction utilizing the Savvas myPerspectives<sup>®</sup> curriculum as well as *Read 180* instruction daily (using the Single Period Model in schools with a traditional schedule) or 2–3 times per week (using the Double Period Model in schools with block scheduling). In the Single Period Model, students alternated A and B patterns of instruction, with A days consisting of 20 minutes of whole-group instruction followed by 20 minutes of a station rotation (rotated between the *Read 180* online student application, small-group learning, and independent reading), and concluding with 5 minutes of whole-group wrap-up, and B days consisting of 20 minutes each of 2 station rotations and concluding with 5 minutes of whole-group wrap-up. In the Double Period Model, classes were held every other day and consisted of 20 minutes of whole-group instruction followed by 20 minutes using the *Read 180* online student application, 20 minutes of small-group learning, and 20 minutes of independent reading, and concluding with 10 minutes of whole-group wrap-up. Using these patterns, students completed each station every other school day, or approximately 2.5 times a week.

M-DCPS teachers received a variety of professional development and support opportunities. During Years 1 to 3, building-level leaders attended a Leadership Symposium and HMH consultants provided opportunities for a minimum of three one-on-one coaching sessions for each teacher. District-wide, teachers were invited to monthly Next Level Champions check-in meetings with mini-lessons based on teacher needs. Teacher leaders engaged in professional development sessions 3–4 times per year through Literacy Content Academies and iCAD sessions. These focused on building capacity with teacher leaders on best practice instruction so that they could, in turn, provide on the

<sup>1</sup>Correlational study with statistical control for selection bias.  
<sup>2</sup><https://arda.dadeschools.net/#1/fullWidth/3896>

ground support to teachers between scheduled virtual coaching sessions with HMH Instructional coaches. The implementation was monitored through bi-monthly collaboration with district point-of-contact to coordinate implementation planning and execution, provide ongoing feedback to all stakeholders on progress toward goals, and provide targeted coaching reports for teachers. In addition, data analysis meetings were held with district leaders and HMH partners three times per year.

## PARTICIPANTS

In M-DCPS, 154 schools utilized *Read 180* for Tier 2 reading intervention classes during the 2022–2023 school year. All students who completed at least 100 minutes of *Read 180* software usage but not *System 44* software in the same year ( $N=26,597$ ) were included in the analysis. *Read 180* student demographics included: Asian or Pacific Islander (0.5%), Black or African American (29%), Caucasian or White (4%), Hispanic (66%), Indian (<0.1%), Native American (<0.1%), and students with multiple ethnic backgrounds (0.4%) (see Table 1). Of these students, 45% were female and 55% were male, 71% were eligible for Free or Reduced-Price Lunch (FRPL; classified as socio-economically disadvantaged, although 28% of students did not apply as lunch was made free for all students), 24% were classified as Students with an Individualized Education Plan (IEP), and 4% were classified as English Learners (EL).

TABLE 1. M-DCPS READ 180 STUDENTS GRADES 6–12 ( $N=26,597$ ) DEMOGRAPHICS 2022–2023		
Characteristics	N	Percentage
<b>Grade</b>		
6	3,522	13.2%
7	4,327	16.3%
8	4,963	18.7%
9	5,622	21.1%
10	5,325	20.0%
11	2,181	8.2%
12	657	2.5%
<b>Gender</b>		
Female	12,037	45.3%
Male	14,555	54.7%
Not Reported	5	<0.1%
<b>Ethnicity</b>		
Asian or Pacific Islander	136	0.5%
Black	7,745	29.1%
Caucasian	956	3.6%
Hispanic	17,631	66.3%
Indian	4	<0.1%
Native American	2	<0.1%
Multiple Ethnicities	116	0.4%
Not Reported	7	<0.1%
<b>Socio-economically disadvantaged</b>		
Yes	18,842	70.8%
No	393	1.5%
Not Reported	7,362	27.7%
<b>Students with an Individual Education Plan</b>		
Yes	6,365	23.9%
Not Reported	5	<0.1%
<b>English Learners</b>	1,181	4.4%

Students with an IEP had a variety of diagnoses (see Table 2).

TABLE 2. M-DCPS READ 180 STUDENTS GRADES 6–12 ( $N=26,597$ ) IEP DIAGNOSIS 2022–2023		
Diagnosis	N	Percentage
Specific Learning Disabled	3,146	11.8%
Other Health Impaired	1,290	4.9%
Gifted	765	2.9%
Autism Spectrum Disorder	575	2.2%
Emotional/Behavioral Disabilities	268	1.0%
Speech Impaired	99	0.4%
Language Impaired	87	0.3%
Deaf or Hard of Hearing	66	0.2%
Intellectual Disabilities	28	0.1%
Orthopedically Impaired	20	0.1%
Visually Impaired	17	0.1%
Developmentally Delayed	2	<0.1%
Traumatic Brain Injured	2	<0.1%
No IEP	20,232	76.0%

## MEASURES

### Software Usage Data

Student software usage data was collected as students used the online student application during *Read 180* instruction. Software usage data included number of completed segments, number of completed sessions, average time spent in each session, and number of sessions averaged per week.

### Florida Standards Assessment

The Florida Standards Assessment (FSA) was designed to measure student progress in achieving end-of-year Florida Standards in ELA. During the 2014–2015 through 2021–2022 school years, students in grades 3–10 completed the paper- or computer-based summative assessment at the end of the school year. Assessment results include a scale score that corresponds to Performance Level Descriptors based on grade-level cutoff scores, with a level 3 or higher indicating satisfactory performance (PLD; 1 = inadequate, 2 = below satisfactory, 3 = satisfactory, 4 = proficient, and 5 = mastery).

### Florida Assessment of Student Thinking (FAST)

The Florida Assessment of Student Thinking (FAST) was designed to measure student progress in achieving end-of-year Benchmarks for Excellent Student Thinking (BEST) ELA standards. PK through grade 10 students completed the computer-adaptive assessment three times a year (beginning of year, middle of year, and end of year), serving both as a progress monitoring and summative assessment. Assessment results include a scale score that corresponds to Performance Level Descriptors based on grade-level cutoff scores with a level 3 or higher indicating satisfactory performance (PLD; 1 = well below grade level, 2 = below grade level, 3 = on grade level, 4 = proficient, and 5 = exemplary). FAST scale scores reported during the 2022–2023 school year remained on the same scale as prior-year FSA scores to allow for multi-year comparisons.

### Reading Inventory

The HMH *Reading Inventory* measures reading comprehension proficiency for students in grades K–12. The *Reading Inventory* uses adaptive technology to determine a student's reading comprehension level on the Lexile® Framework for Reading. Assessment results include a Lexile score that indicates reading ability at a level of text complexity and a performance level of below basic, basic, proficient, or advanced, indicating achieved reading comprehension compared to grade-level expectations. M-DCPS students receiving *Read 180* instruction completed the *Reading Inventory* at least twice each year (fall and winter, fall and spring, or winter and spring).

# RESULTS

An independent evaluator from Forge Research Group analyzed student academic achievement using data provided by the Miami-Dade County Public Schools and Houghton Mifflin Harcourt. *Read 180* students' ELA performance was examined pre- and post-*Read 180* usage utilizing multiple independent outcome measures.

## USAGE

In the 2022–2023 school year, M-DCPS *Read 180* students completed an average of 34.3 ( $SD=15.0$ ) total sessions with 1.1 ( $SD=0.3$ ) sessions averaged a week and averaging 20.6 minutes ( $SD=8.7$ ) per session in the *Read 180* online student application (see Table 3).

TABLE 3. M-DCPS <i>READ 180</i> STUDENTS GRADES 6–12 (N=26,597) <i>READ 180</i> SOFTWARE USAGE 2022–2023		
<i>Read 180</i> Software Usage	2022–2023	
	M	SD
Segments Completed	3.6	3.7
Sessions Completed	34.3	15.0
Total Time	720.8	482.6

## PERFORMANCE

### *Reading Inventory*

*Read 180* students completed the *Reading Inventory* before beginning *Read 180* and as a progress check throughout the 2022–2023 school year. Overall, students who completed the *Reading Inventory* in the fall and spring<sup>3</sup> demonstrated a statistically significant overall gain in Lexile (L) scores, averaging a 93L increase from fall to spring testing in the school year (see Figure 1). The magnitude of the difference between pre-*Read 180* and post-*Read 180* *Reading Inventory* Lexile scores was large as indicated by the effect size Cohen's  $d=.83$ . Disaggregation of the data indicated that students in each grade achieved statistically significant *Reading Inventory* Lexile gains.

**FIGURE 1**  
**M-DCPS *READ 180* STUDENTS GRADES 6–12 (N=18,862)**  
**CHANGE IN *READING INVENTORY* LEXILE SCORE OVERALL AND BY GRADE, 2022–2023**

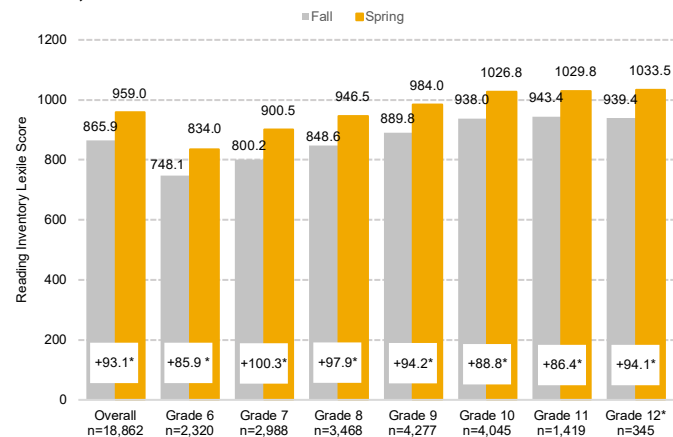


Figure Note: \*statistically significant change at one-sided  $p<.05$ .

Disaggregation of the data indicated that males and females, students from each ethnic background, students classified as socio-economically disadvantaged (FRPL-eligible), students with an IEP, and EL students all achieved statistically significant *Reading Inventory* Lexile score gains from pre-to post-*Read 180* instruction with effect size Cohen's  $d=.81-.96$  (see Figure 2 and Appendix Table A1).

**FIGURE 2**  
**M-DCPS *READ 180* STUDENTS GRADES 6–12 (N=18,862)**  
**CHANGE IN *READING INVENTORY* LEXILE SCORE BY STUDENT CATEGORY, 2022–2023**

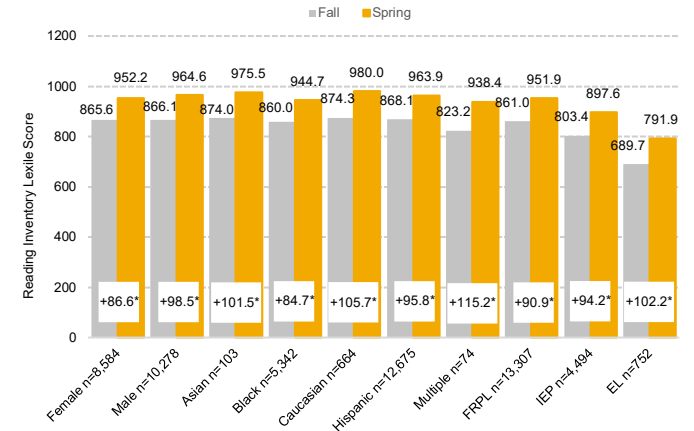


Figure Note: \*statistically significant change at one-sided  $p<.05$ . Multiple=multiple ethnic backgrounds; FRPL=eligible for Free or Reduced-Priced Lunch; IEP=Individualized Educational Plan; EL=English Learner. Categories with fewer than 10 students are suppressed.

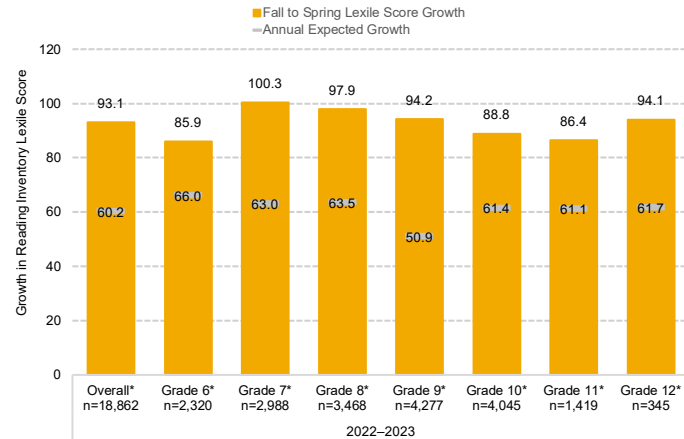
Of note, each diagnostic category of students with an IEP demonstrated a statistically significant overall increase in *Reading Inventory* Lexile scores (see Appendix Figure A1). Five diagnostic groups achieved increases above 80L, on par with students without an IEP, including students with these diagnoses: speech impaired, emotional/behavioral disabilities, specific learning disabled, gifted, and other health impaired. Within this demographic group, students with intellectual disabilities achieved the smallest (35L) and students with a gifted designation achieved the greatest (105L) *Reading Inventory* Lexile score gains from pre-to post-*Read 180* instruction.

Based on a nationally representative sample, fall to spring growth by grade level and initial Lexile score was averaged across six years of 373,880 students' data to create an annual expected growth measure<sup>4</sup>. Overall, *Read 180* students who completed a *Reading Inventory* in both fall and spring achieved greater than expected annual *Reading Inventory* Lexile score growth (see Figure 3). Of note, these gains averaged 1.6 times more growth than expected and students at each grade level attained statistically significantly greater than average annual expected growth. More than half of the students met or exceeded growth goals (60%) based on the annual expected growth and 39% of students demonstrated at least 2 times more than annual expected growth.

<sup>3</sup>As a previous *Read 180* gains analysis has shown that students who decrease more than 100L on the *Reading Inventory* from fall to spring demonstrate poor test motivation and produce unreliable longitudinal achievement scores, those scores that decreased more than 100L were excluded from this implementation analysis. The *Reading Inventory* scores of some M-DCPS students decreased more than 100L in the 2022–2023 school year (8%;  $n=1,880$ ).

<sup>4</sup><https://www.hmhco.com/documents/hmh-reading-inventory-est-average-annual-growth>

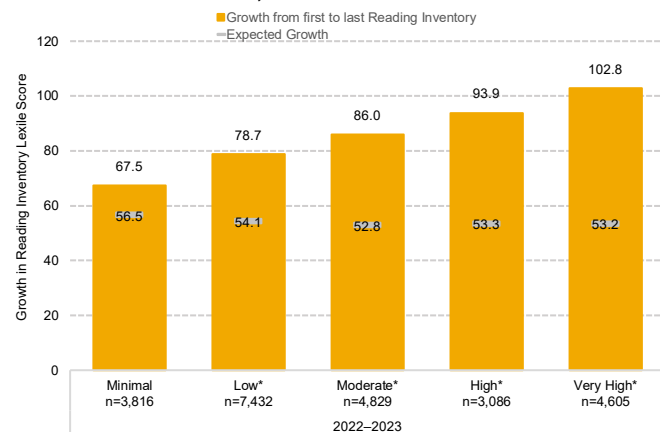
**FIGURE 3**  
**M-DCPS READ 180 STUDENTS GRADES 6–12 (N=18,862)**  
**READING INVENTORY LEXILE SCORE GROWTH BY YEAR AND GRADE LEVEL, FALL 2022 TO SPRING 2023**



**Figure Note:** \*statistically significant difference between expected and actual growth at  $p < .05$ .

Further, use of the *Read 180* online Student Application (Student App) was a statistically significant predictor of *Reading Inventory* Lexile score growth in the 2022–2023 school year (see Appendix Table A2 for details). On average, *Read 180* students who completed more segments of the *Read 180* online software also achieved higher gains in the *Reading Inventory* Lexile score from first to last assessment (see Figure 4). Students who completed 7 or more segments of the Student App achieved an average of 1.5 times more Lexile score gain (103L) compared to students who completed less than one segment (68L). The magnitude of the difference between pre-*Read 180* and post-*Read 180* *Reading Inventory* Lexile scores was medium to large at each level of implementation as indicated by the effect sizes: minimal implementation Cohen's  $d = .62$ , low implementation Cohen's  $d = .72$ , moderate implementation Cohen's  $d = .82$ , high implementation Cohen's  $d = .86$ , and very high implementation Cohen's  $d = .87$ .

**FIGURE 4**  
**M-DCPS READ 180 STUDENTS GRADES 6–12 (N=23,768)**  
**AVERAGE READING INVENTORY GAIN IN LEXILES BY IMPLEMENTATION LEVEL, 2022–2023**



**Figure Note:** \*statistically significant difference between expected and actual growth at  $p < .05$ . *Reading Inventory* Lexile score gains increased between each of minimal (0 segments), low (1–2 segments), moderate (3–4 segments), high (5–6 segments), and very high (7 or more segments) levels of implementation,  $p < .001$ .

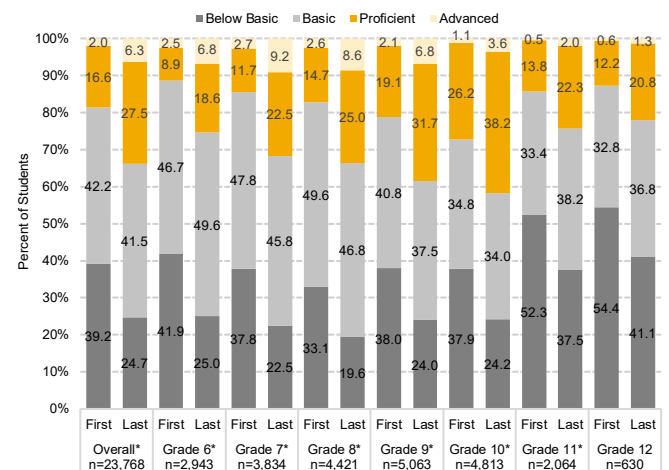
Of note, in the 2022–2023 school year, based on beginning of year grade-level proficient College and Career Ready Lexile scores<sup>5</sup>, 58% of *Read 180* students increased at least 1 grade level in reading proficiency, with 14% of students increasing 2, and 17% of students increasing 3 or more grade levels in reading proficiency (see Table 4).

**TABLE 4. M-DCPS READ 180 STUDENTS GRADES 6–12 (N=23,768)**  
**INCREASE IN GRADE-LEVEL READING PROFICIENCY 2022–2023**

Grade Levels Gained	N	%
1	6,248	26.3
2	3,345	14.1
3 or more	4,101	17.2

*Read 180* student *Reading Inventory* performance levels also reflected these increases in reading proficiency (see Figure 5). The percent of students achieving at least a proficient *Reading Inventory* performance level increased from first to last testing by 82% (from 19% to 34%) in the 2022–2023 school year. Further, the percent of students scoring at a below basic performance level decreased from first to last testing by 37% (from 39% to 25%) in the 2022–2023 school year. The increase in students' performance levels on the *Reading Inventory* was statistically significant overall and at each grade level, and the magnitude of the difference between pre-*Read 180* and post-*Read 180* *Reading Inventory* performance levels was medium as indicated by the effect size Cohen's  $d = .61$ .

**FIGURE 5**  
**M-DCPS READ 180 STUDENTS GRADES 6–12 (N=23,768)**  
**CHANGE IN READING INVENTORY PERFORMANCE LEVELS, 2022–2023**



**Figure Note:** \*statistically significant change at one-sided  $p < .05$ .

#### Florida Assessment of Student Thinking (FAST) and Florida Standards Assessment (FSA)

*Read 180* students completed the FAST ELA test in the fall and spring of the 2022–2023 school year. Overall, students demonstrated a statistically significant overall increase in FAST ELA scale scores, averaging a 13-point gain from first testing to last testing within the school year (see Figure 6). The magnitude of the difference between pre-*Read 180* and post-*Read 180* FAST ELA scores was medium as indicated by the effect size Cohen's  $d = .66$ . Disaggregation of the data (see Appendix Table A3) indicated that students in each of grades 6–10 achieved statistically significant FAST ELA scale score gains.

<sup>5</sup><https://lexile.com/educators/measuring-growth-with-lexile/college-and-career-readiness/>

**FIGURE 6**  
**M-DCPS READ 180 STUDENTS GRADES 6–10 (N=22,830)**  
**CHANGE IN FAST ELA SCALE SCORE OVERALL AND BY GRADE**  
**FALL 2022 TO SPRING 2023**

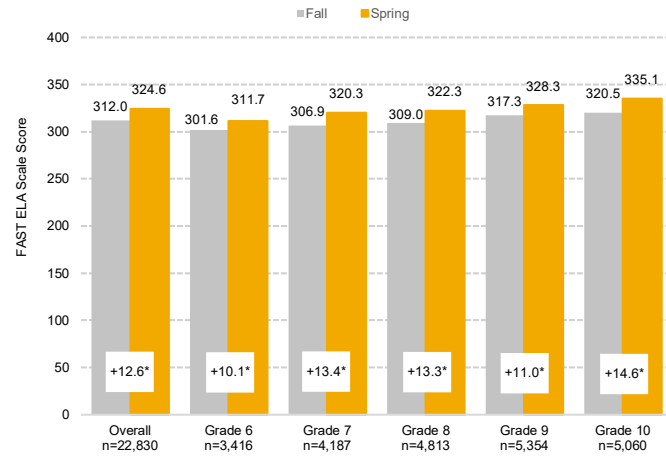


Figure Note: \*statistically significant change at one-sided  $p < .05$ .

Disaggregation of the data indicated that males and females, students from each ethnic background, students classified as socio-economically disadvantaged (FRPL-eligible), students with an IEP, and EL students all achieved statistically significant FAST ELA scale score gains from pre-to post-*Read 180* instruction with effect size Cohen's  $d = .57-.68$  (see Figure 7).

**FIGURE 7**  
**M-DCPS READ 180 STUDENTS GRADES 6–10 (N=22,830)**  
**CHANGE IN FAST ELA SCALE SCORE BY STUDENT CATEGORY**  
**FALL 2022 TO SPRING 2023**

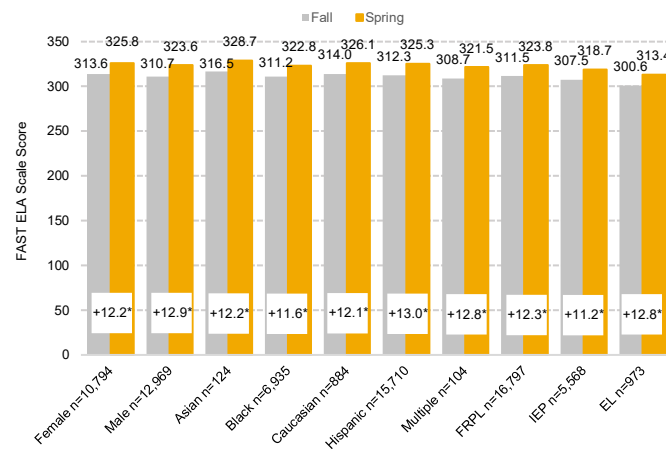


Figure Note: \*statistically significant change at one-sided  $p < .05$ . Multiple=multiple ethnic backgrounds; FRPL=eligible for Free or Reduced-Priced Lunch; IEP=Individualized Educational Plan; EL=English Learner. Categories with fewer than 10 students are suppressed.

Of note, students with an IEP demonstrated a statistically significant overall increase in FAST ELA scale scores, averaging between a 7-point and 12-point gain from fall to spring testing (see Appendix Figure A2). Seven diagnostic groups achieved increases at or above 10 points, on par with students without an IEP, including students with these diagnoses: orthopedically impaired, speech impaired, language impaired, visually impaired, emotional/behavioral disabilities, gifted, and autism spectrum disorder. Within this demographic group, students with other health impairments achieved the smallest (6.5 point) and students with language impairments achieved the greatest (12.2 point) FAST ELA scale score gains from pre- to post-*Read 180* instruction.

Further, use of the *Read 180* Student App was a statistically significant predictor of FAST ELA scale score growth in the 2022–2023 school year (see Appendix Table A4 for details). On average, *Read 180* students who completed more segments of the *Read 180* Student App also achieved higher gains in the FAST ELA scale score from fall to spring assessment

(see Figure 8). Students who completed 7 or more segments of the Student App achieved an average of 1.2 times more scale score gain (14 points) compared to students who completed less than one segment (12 points). The magnitude of the difference between pre-*Read 180* and post-*Read 180* FAST ELA scores was medium at each level of implementation as indicated by the effect sizes: minimal implementation Cohen's  $d = .61$ , low implementation Cohen's  $d = .64$ , moderate implementation Cohen's  $d = .66$ , high implementation Cohen's  $d = .72$ , and very high implementation Cohen's  $d = .76$ .

**FIGURE 8**  
**M-DCPS READ 180 STUDENTS GRADES 6–10 (N=22,830)**  
**AVERAGE FAST ELA SCALE SCORE GAIN BY READ 180 IMPLEMENTATION LEVEL, 2022–2023**

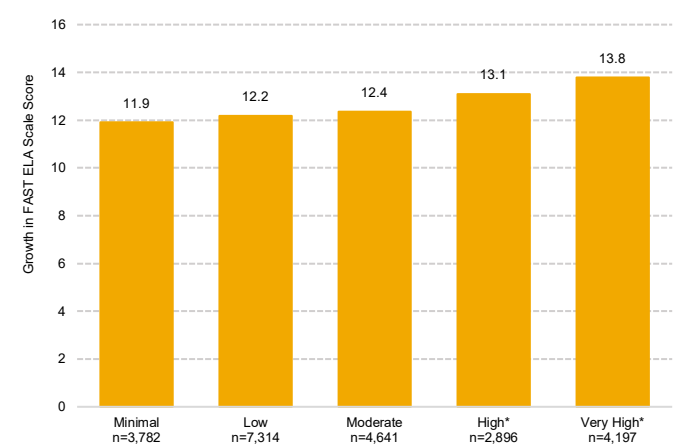
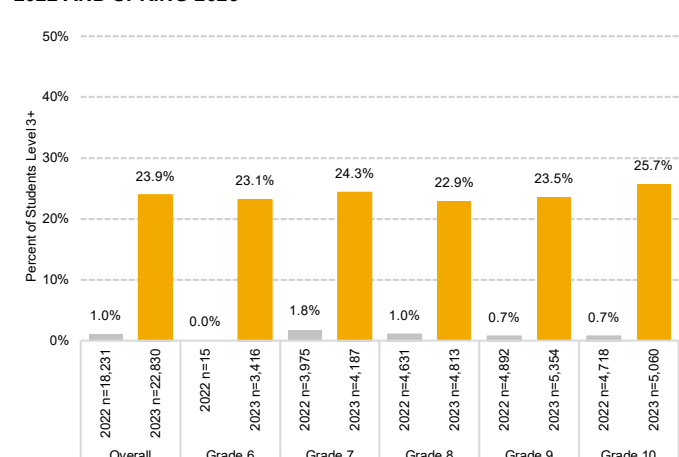


Figure Note. Statistically significant increase in FAST ELA scale score gains between minimal (0 segments) through moderate (3–4 segments) and high (5–6 segments) through very high (7 or more segments) levels of implementation.

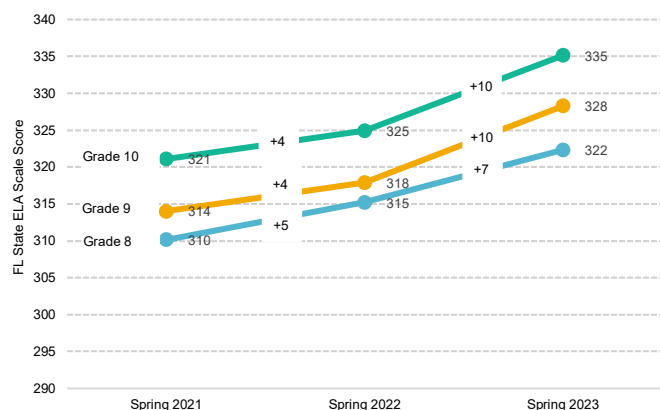
M-DCPS *Read 180* students completed the FSA ELA summative assessment in the spring of the 2021–2022 school year and the FAST ELA assessment (on the same scale) in the spring of the 2022–2023 school year to measure end-of-year ELA skills. M-DCPS *Read 180* students' ELA summative test performance levels increased from spring 2022 to spring 2023 (see Figure 9). The percent of M-DCPS *Read 180* students achieving a satisfactory or on-grade-level (level 3) or higher performance level increased from 1% (spring 2022) to 24% (spring 2023). The difference between pre-*Read 180* and post-*Read 180* FAST ELA performance levels was effect size Cohen's  $d = .38$ . These trends indicate that M-DCPS *Read 180* students have demonstrated accelerated growth towards ELA competency.

**FIGURE 9**  
**M-DCPS READ 180 STUDENTS GRADES 6–10 (N=22,830)**  
**PERCENT OF STUDENTS ACHIEVING ON GRADE LEVEL FLORIDA STATE TEST ELA PERFORMANCE LEVEL DESCRIPTORS SPRING 2022 AND SPRING 2023**



Overall, *Read 180* students who completed the FSA ELA in spring 2021 averaged a 315 scale score, *Read 180* students who completed the FSA ELA in spring 2022 averaged a 317 scale score, and *Read 180* students who completed the FAST ELA in spring 2023 averaged a 325 scale score. Compared to the year-to-year growth attained pre-*Read 180* use from spring 2021 to spring 2022, students at each grade level attained accelerated year-to-year growth post-*Read 180* use from spring 2022 to spring 2023 (see Figure 10).

**FIGURE 10**  
**M-DCPS READ 180 STUDENTS GRADES 8–10 (N=15,227)**  
**FSA ELA SCALE SCORE SPRING 2021 AND SPRING 2022, AND FAST**  
**ELA SCORE SPRING 2023, BY GRADE**



*Figure Note:* Though the pattern was the same, sixth and seventh grade students are excluded as few had 3 years of data.

## CONCLUSION

A correlational analysis using multiple independent ELA outcome measures supported the idea that Miami-Dade County Public Schools students who received *Read 180* instruction made significant improvements in English Language Arts proficiency.

M-DCPS utilized the HMH *Read 180* program as a Tier 2 ELA intervention for 6<sup>th</sup>–12<sup>th</sup> grade students not achieving grade-level ELA proficiency at the end of the 2021–2022 school year. M-DCPS students in grades 6–12 who received *Read 180* instruction demonstrated statistically significant increases in *Reading Inventory* Lexile scores and FAST ELA scale scores. Further, *Read 180* students demonstrated statistically significantly greater than annual expected growth on the HMH *Reading Inventory*, achieving 1.6 times more growth than expected based on a national average. The total number of completed *Read 180* Student Application segments varied by student. In the 2022–2023 school year, an increased number of completed segments was a significant predictor of both FAST ELA scale score and *Reading Inventory* Lexile score growth. Importantly, 31% of *Read 180* students increased at least two grade levels in reading comprehension after one year of instruction, with 24% achieving an on-grade-level FAST ELA performance level and 34% achieving a proficient or higher *Reading Inventory* performance level, indicating an ability to access grade-level curriculum. Notably, M-DCPS *Read 180* students achieved significantly greater year-to-year Florida state ELA assessment scale score increases post-*Read 180* implementation as compared to pre-*Read 180* implementation.

Of note, statistically significant gains were achieved on both ELA outcome measures by students in each demographic category of grade level, gender, ethnicity, EL, IEP, and students classified or not classified as socio-economically disadvantaged. Overall, students with an IEP in each diagnostic category averaged a statistically significant increase on both ELA outcome measures, with students in 5 diagnostic categories achieving *Reading Inventory* Lexile score gains equivalent to students without an IEP and students in 7 diagnostic categories achieving FAST

ELA scale score gains equivalent to students without an IEP. This study demonstrates that *Read 180* is an effective program for accelerating ELA gains among students struggling to achieve grade-level ELA proficiency, including SWD and EL students.

# APPENDIX

**FIGURE A1**  
**M-DCPS READ 180 STUDENTS WITH AN IEP GRADES 6–12 (N=23,768)**  
**CHANGE IN READING INVENTORY SCALE SCORE BY DIAGNOSIS 2022–2023**

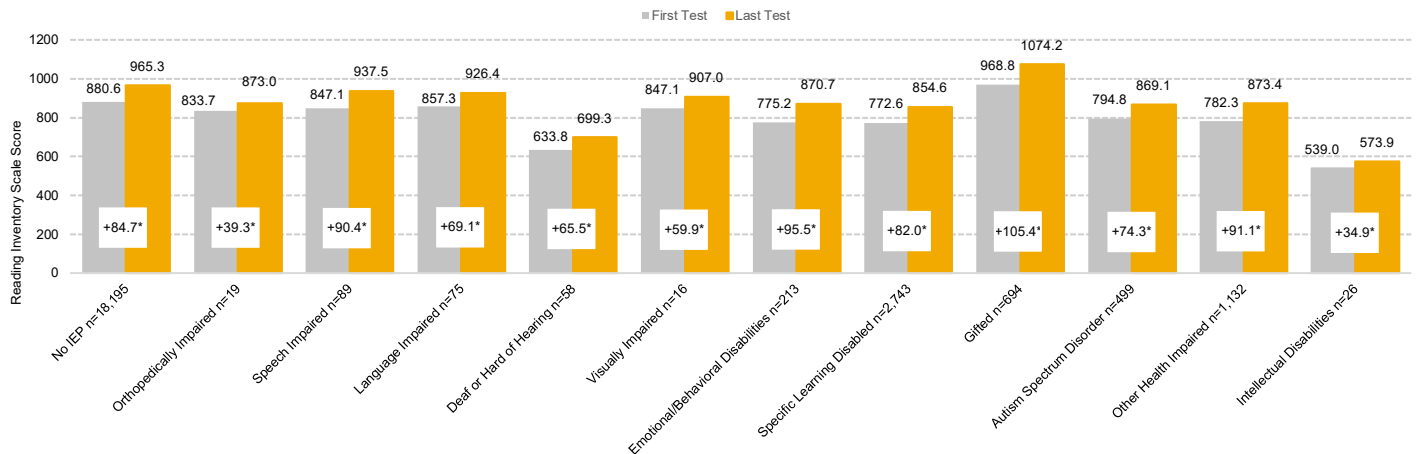


Figure Note: \*statistically significant change at one-sided  $p < .05$ . Categories with fewer than 10 students are suppressed.

**FIGURE A2**  
**M-DCPS READ 180 STUDENTS WITH AN IEP GRADES 6–10 (N=22,830)**  
**CHANGE IN FAST ELA SCALE SCORE OVERALL AND BY DIAGNOSIS FALL 2022 TO SPRING 2023**

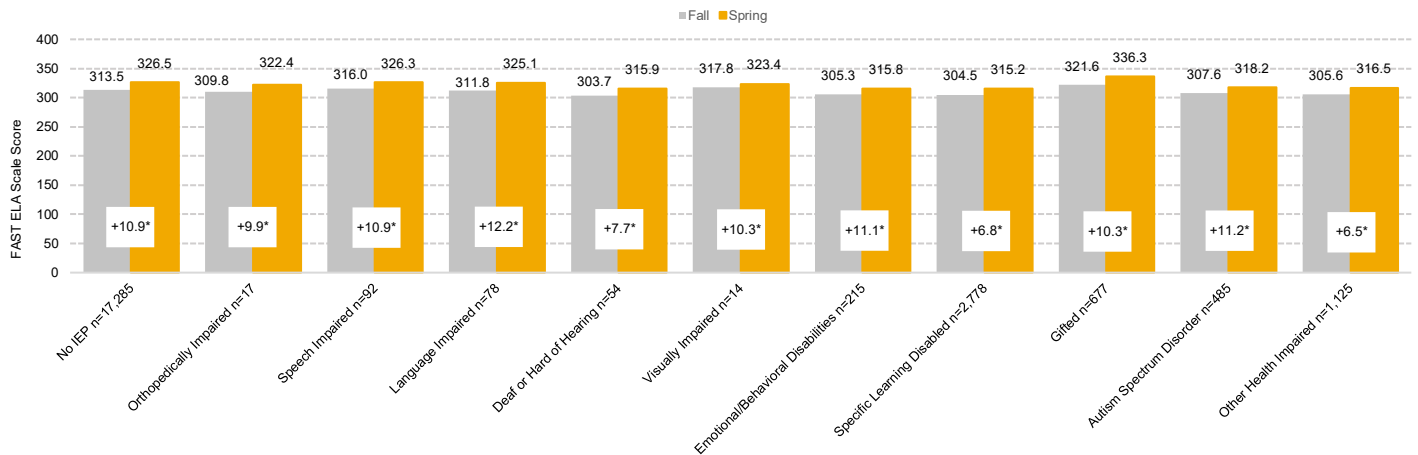


Figure Note: \*statistically significant change at one-sided  $p < .05$ . Categories with fewer than 10 students are suppressed.

**TABLE A1.**  
**MIAMI-DADE COUNTY PUBLIC SCHOOLS READ 180 STUDENTS, GRADES 6–12, (N=23,768)**  
**RESULTS OF T-TEST AND DESCRIPTIVE STATISTICS *READING INVENTORY*, 2022–2023**

	First Reading Inventory Score		Last Reading Inventory Score			95% CI for			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>n</i>	Mean Difference	<i>t</i>	<i>df</i>	<i>p</i>
<b>2022–2023</b>									
Fall to Spring Overall	865.88	212.88	958.97	205.53	18,862	-94.69, -91.49	-113.96	18,861	<.001
<b>Grade</b>									
Sixth	748.10	176.45	834.04	175.67	2320	-90.52, -81.36	-36.79	2319	<.001
Seventh	800.17	187.37	900.45	184.13	2988	-104.31, -96.25	-48.79	2987	<.001
Eighth	848.61	188.62	946.53	185.39	3468	-101.58, -94.27	-52.51	3467	<.001
Ninth	889.80	207.67	984.01	198.23	4277	-97.57, -90.86	-55.09	4276	<.001
Tenth	938.03	222.63	1026.84	210.07	4045	-92.25, -85.36	-50.57	4044	<.001
Eleventh	943.36	223.41	1029.78	214.45	1419	-92.34, -80.49	-28.60	1418	<.001
Twelfth	939.38	233.27	1033.47	213.55	345	-107.75, -80.42	-13.54	344	<.001
<b>Gender</b>									
Female	865.61	200.74	952.23	197.19	8584	-88.88, -84.36	-75.08	8583	<.001
Male	866.10	222.53	964.60	212.08	10,278	-100.74, -96.25	-85.96	10,277	<.001
<b>Socio-economically Disadvantaged</b>									
FRPL Eligible	860.95	211.51	951.86	203.52	13,307	-92.79, -89.02	-94.45	13,306	<.001
<b>Student with IEP</b>									
Yes	803.40	234.65	897.58	229.97	4494	-97.56, -90.81	-54.73	4494	<.001
<b>English Language Learner</b>									
Yes	689.71	240.95	791.90	234.34	752	-111.11, -93.27	-22.49	751	<.001
<b>Ethnicity</b>									
Asian or Pacific Islander	873.99	213.11	975.50	193.30	103	-124.08, -78.95	-8.92	102	<.001
Black	860.01	198.50	944.68	194.90	5342	-87.49, -81.85	-58.85	5341	<.001
White/Caucasian	874.33	217.92	979.98	200.77	664	-114.63, -96.67	-23.09	663	<.001
Hispanic	868.06	218.27	963.85	209.84	12,675	-97.78, -93.80	-94.21	12,674	<.001
Multiple Ethnic Backgrounds	823.22	229.17	938.42	214.54	74	-143.09, -87.32	-8.24	73	<.001
<b>Level of Implementation</b>									
Minimal	831.25	243.895	898.72	234.589	3816	-70.91, -64.03	-38.472	3815	<.001
Low	846.62	220.943	925.35	214.012	7432	-81.22, -76.24	-62.062	7431	<.001
Moderate	872.16	208.649	958.13	201.954	4829	-88.95, -83.00	-56.653	4828	<.001
High	875.9	201.954	969.76	209.757	3086	-97.70, -90.03	-48.014	3085	<.001
Very High	892.46	211.413	995.24	201.482	4605	-106.21, -99.36	-58.791	4604	<.001

*Table Note.* *M*=mean; *SD*=standard deviation; *n*=sample size; *CI*=confidence interval; *df*=degrees of freedom; *p*=one-sided significance. Demographic categories with less than 10 students are suppressed to maintain student confidentiality.

**TABLE A2.**  
**MIAMI-DADE COUNTY PUBLIC SCHOOLS READ 180 STUDENTS, GRADES 6–12, (N=23,768)**  
**REGRESSION ANALYSIS OF READING INVENTORY LEXILE SCORE GAIN, 2022–2023**

Variable	N	M	SD	t	Naïve Analysis		Corrected for Selection Bias	
					95% CI	p	95% CI	p
Read 180 Segments 2022–2023	23,768	85.02	110.78	72.26	71.52, 75.51	<.001	71.62, 75.64	.002

Table Note. N=sample size; M=mean; SD=standard deviation; CI=confidence interval; p=significance.

**TABLE A3.**  
**MIAMI-DADE COUNTY PUBLIC SCHOOLS READ 180 STUDENTS, GRADES 6–10, (N=22,830)**  
**RESULTS OF T-TEST AND DESCRIPTIVE STATISTICS FAST ELA, 2022–2023**

	Fall FAST ELA Score		Spring FAST ELA Score		n	95% CI for Mean Difference	t	df	p
	M	SD	M	SD					
<b>2022–2023</b>									
Overall	312.01	20.18	324.59	20.86	22,830	-12.83, -12.34	-98.90	22,829	<.001
<b>Grade</b>									
Sixth	301.63	18.39	311.69	18.80	3416	-10.65, -9.46	-32.97	3415	<.001
Seventh	306.85	18.72	320.26	18.10	4187	-13.98, -12.85	-46.42	4186	<.001
Eighth	309.02	18.06	322.34	18.96	4813	-13.83, -12.81	-50.98	4812	<.001
Ninth	317.34	18.85	328.28	19.60	5354	-11.46, -10.42	-41.17	5353	<.001
Tenth	320.49	20.67	335.14	21.15	5060	-15.22, -14.07	-49.71	5059	<.001
<b>Gender</b>									
Female	313.62	19.80	325.83	20.06	10374	-12.56, -11.85	-67.38	10373	<.001
Male	310.67	20.39	323.57	21.46	12456	-13.25, -12.55	-72.55	12455	<.001
<b>Socio-economically Disadvantaged</b>									
FRPL Eligible	311.49	20.17	323.76	20.81	16303	-12.56, -11.97	-81.47	16302	<.001
<b>Student with IEP</b>									
Yes	307.45	20.60	318.70	22.12	5545	-11.77, -10.74	-42.69	5544	<.001
<b>English Learner</b>									
Yes	300.61	18.57	313.36	20.81	1044	-13.93, -11.57	-21.17	1043	<.001
<b>Ethnicity</b>									
Asian or Pacific Islander	316.46	20.45	328.73	19.31	112	-15.68, -8.87	-7.14	111	<.001
Black	311.24	19.92	322.79	20.11	6937	-11.98, -11.12	-52.57	6936	<.001
White/Caucasian	313.98	19.47	326.10	21.07	784	-13.43, -10.82	-18.22	783	<.001
Hispanic	312.25	20.32	325.34	21.15	14906	-13.40, -12.77	-81.29	14905	<.001
Multiple Ethnic Backgrounds	308.67	19.42	321.49	19.81	87	-17.03, -8.63	-6.07	86	<.001
<b>Level of Implementation</b>									
Minimal	307.85	20.173	320.10	21.431	3243	-12.94, -11.56	-34.65	3242	<.001
Low	310.54	19.945	322.84	20.412	6674	-12.77, -11.84	-51.90	6673	<.001
Moderate	313.53	19.424	325.91	19.735	4382	-12.94, -11.82	-43.38	4381	<.001
High	314.17	19.611	327.39	19.493	2760	-13.91, -12.53	-37.59	2759	<.001
Very High	318.13	19.099	331.92	19.477	4037	-14.35, -13.23	-47.99	4036	<.001

Table Note. M=mean; SD=standard deviation; n=sample size; CI=confidence interval; df=degrees of freedom; p=one-sided significance. Demographic categories with less than 10 students are suppressed to maintain student confidentiality.

**TABLE A4.**  
**MIAMI-DADE COUNTY PUBLIC SCHOOLS *Read 180* STUDENTS, GRADES 6–10, (N=22,830)**  
**REGRESSION ANALYSIS OF FAST ELA SCALE SCORE GAIN FROM FALL TO SPRING, 2022–2023**

Variable	N	M	SD	t	Naïve Analysis		Corrected for Selection Bias	
					95% CI	p	95% CI	p
<i>Read 180</i> Segments 2022–2023	22,830	12.58	19.23	67.05	11.76, 12.47	<.001	11.73, 12.53	.002

*Table Note.* N=sample size; M=mean; SD=standard deviation; CI=confidence interval; p=significance.

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