

RESEARCH UPDATE

Lawrence Public School District
Lawrence, Massachusetts

Achievement Gains Across the Board for *READ 180*[®] Students in Elementary, Middle, and High Schools

PROFILE

District: Lawrence Public Schools

Evaluation Period: 2008–2009 School Year

Grades: 4th–10th grades

Model: Daily 90-minute *READ 180* classrooms

Assessment: MCAS, MAP

Upon conclusion of the 2008–2009 school year, the Office of Assessment and Accountability in LPS gathered numerous data sources to compile a comprehensive picture of *READ 180* students' literacy achievement. This Research Update summarizes findings as presented by Dr. Tiffany Luther.

DISTRICT CHARACTERISTICS

In the fall of 2009, Lawrence Public Schools (LPS) enrolled 12,284 students in 26 schools. The district's student population is largely Hispanic (89%), followed by White (6%), Black (2%), and Asian (2%) students. Eighty-seven percent of students are from low-income backgrounds and 79% speak a first language other than English. Twenty-two percent of students are English language learners and 20% of students are enrolled in special education services.

IMPLEMENTATION MODEL

The *READ 180* model in LPS is almost exclusively a 90 minute model for five days each week, with the exception of one school that implements the program for 60 minutes every other day. Within the standard 90-minute *READ 180* rotational model, 20 minutes are allocated to the small-group computer rotation, where students work independently on an individualized and adaptive software program.

IMPLEMENTATION OVERVIEW

LPS has one of the largest implementations of *READ 180* in Massachusetts. The district began using *READ 180* with 9 schools in the 2005–2006 school year. By the 2008–2009 school year, 15 schools (9 elementary and middle schools, and 6 high schools), 38 classes, 34 teachers, and 513 students were using *READ 180*.

PARTICIPANTS

Table 1 presents the demographic data for this study sample, as provided by LPS. Overall, 83% of *READ 180* students were enrolled in the program for the entire school year. The demographic composition of *READ 180* students included 53% general education students, 32% students with disabilities (SPED), 12% English language learners (ELL), and 4% SPED and ELL combined (see Table 1). This sample differs from the district as a whole in that there are higher numbers of students in special education (32% in the sample and 20% in the district). The majority, 83%, of *READ 180* students were in sixth through ninth grade.

Table 1: Enrollment by grade and program (Students enrolled for entire school year).

Grade	Total Students	General Education (Gen ED)	Students With Disabilities (SPED)	English Language Learners (ELL)	Combined (SPED & ELL)
4	31	15 (48%)	8 (26%)	7 (23%)	1 (3%)
5	37	16 (42%)	12 (32%)	8 (21%)	1 (3%)
6	72	51 (71%)	14 (19%)	5 (7%)	2 (3%)
7	55	28 (51%)	17 (31%)	9 (16%)	1 (2%)
8	78	33 (42%)	29 (37%)	13 (17%)	3 (4%)
9	149	84 (56%)	54 (36%)	7 (5%)	4 (3%)
10	3	0	1 (33%)	0	2 (67%)
Total READ 180	426	227 (53%)	135 (32%)	49 (12%)	15 (4%)

MEASURES

Massachusetts Comprehensive Assessment System, English Language Arts (MCAS ELA) is a statewide test developed to assess whether students are Proficient in the state reading standards. The MCAS ELA emphasizes reading and writing skills across all grade levels through Composition, Language, and Reading and Literature.

Results are reported for individuals according to four performance levels: Advanced, Proficient, Needs Improvement, and Warning. For this Research Update, the percentages of students moving between the Warning, Needs Improvement, and Proficient categories were examined for 2008 and 2009.

Measures of Academic Progress (MAP)

Developed by Northwest Evaluation Association (NWEA), Measures of Academic Progress (MAP) for reading is a state-aligned computerized adaptive reading test that reflects the instructional level of each student and measures growth over time. MAP tests are measured using the RIT Scale, short for Rasch Unit, an equal-interval scale that can chart a student's academic growth from year to year.

RESULTS

Software Usage

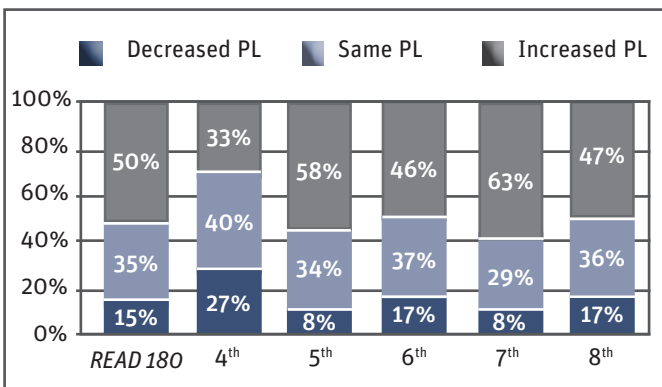
The *READ 180* software program records the amount of time each student spends on the program. Usage data for LPS students indicated that on average, students spent 53% of the 20-minute software instructional time allotted during the course of the year. This results in an average completion rate of 42% of the software content.

MCAS ELA

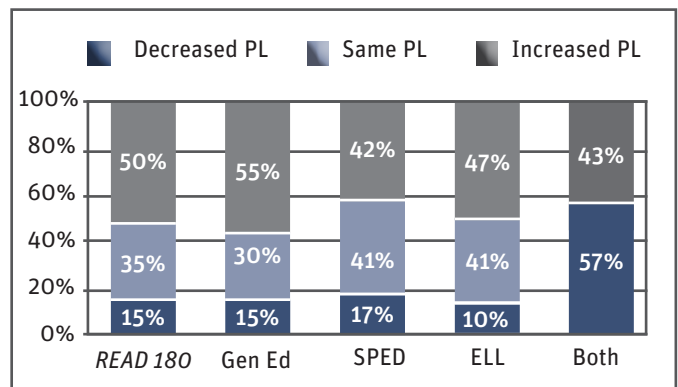
Findings show *READ 180* students demonstrated measurable gains on the MCAS ELA from 2008 to 2009. Overall, 50% of *READ 180* students increased their performance level by more than one category (see Graph 1). Students in the fifth and seventh grades made the largest improvement, showing gains in the percentage of students who improved more than one performance level of 58% and 63% respectively (See Graph 1).

When the data was disaggregated by educational classification, these positive trends continued. While general education students evidenced the greatest gain in the percentage of students who improved their performance level on the MCAS ELA, Special Education and English language learner students achieved nearly the same growth from 2008 to 2009.

Graph 1: Change in performance level (PL) from 2008–2009 MCAS by grade.



Graph 2: Change in performance level (PL) from 2008–2009 MCAS by program.



MCAS ELA—continued

In 2009, the Department of Elementary and Secondary Education began reporting Student Growth Percentile (SGP) scores for the MCAS ELA. These scores provide information on how students are advancing in relation to their academic peers in the school, district, and state. These data are used to aid in the assessment of core academic programs. Overall, from 2008 to 2009, *READ 180* students revealed higher median SGP scores than their peers (See Table 2).

MAP

In using historical MAP and MCAS data from students, the Office of Assessment and Accountability in LPS has aligned MAP RIT scores with the MCAS performance levels. This RIT score is used to monitor student growth from the fall to spring assessment. The RIT score students achieve is then used to calculate a yearly expected growth target. In the spring, the attainment of this target is reviewed. Student performance is then labeled as falling below this target (Below target), meeting this target (Met target), or scoring above this target (Above target). General education and English language learner students made the largest improvement of 67% and 56% respectively (See Table 3).

Table 2: Median SGP of *READ 180* students and all other students by grade level and year.

Grade	MCAS Year	<i>READ 180</i> Students (Median SGP)	Non- <i>READ 180</i> Students (Median SGP)	<i>READ 180</i> vs. Non- <i>READ 180</i>
4	2008	60	49	Greater than
	2009	58	47	Greater than
5	2008	36	41	Less than
	2009	60	46	Greater than
6	2008	52	45	Greater than
	2009	52	47	Greater than
7	2008	61	55	Greater than
	2009	74	48	Greater than
8	2008	60	54	Greater than
	2009	53	51	Greater than

Table 3: Fall to spring RIT growth by program.

Program	Total Students	Below Target			Met Target			Above Target			Met/ Exceed Target (%)
		N	%	Mdn Growth	N	%	Mdn Growth	N	%	Mdn Growth	
Gen Ed	199	67	34%	-3	27	14%	4	105	53%	13	67%
SPED	111	53	48%	-3	14	13%	5	44	40%	13	53%
ELL	43	19	44%	-3	2	5%	5	22	51%	17	56%
SPED/ELL	12	6	50%	-1	1	8%	9	5	42%	22	50%
Total <i>READ 180</i>	365	145	40%	-3	44	12%	4	176	48%	13	60%

CONCLUSION

Elementary, middle, and high school students who participated in *READ 180* showed substantial gains on the MCAS ELA and the NWEA MAP Reading Test. MCAS ELA data illustrated that 50% of *READ 180* students increased their performance by one or more levels with an additional 35% remaining in the same performance category. Calculations of student growth, using the Student Growth Percentile (SGP) scores for the MCAS ELA, revealed that the *READ 180* students demonstrated steeper growth trajectories than non-*READ 180* students for every grade evaluated in 2009. In addition, the 2009 MAP results revealed that 67% of *READ 180* students increased their MAP RIT Reading score from the fall to spring test. These improvements in achievement evidenced on both the MCAS ELA and the NWEA MAP Reading Test highlighted excellent growth for all student populations.

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