

Spring 2018 Third Grade Reading Performance: AIMSWeb and PSSA Assessments

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About the Tests

AIMSWeb

The School District of Philadelphia (SDP) uses AIMSWeb (a universal early literacy screening, benchmarking, and progress-monitoring tool from Pearson) to assess literacy proficiency for all K-5 students. Each grade level is administered one core assessment (in addition to other standardized measures) at three time points across the year (fall, winter, and spring). The core assessment that third graders took in spring 2018 is a Reading-Curriculum Based Measurement (or the R-CBM, for short).

PSSA Exams

Each spring, students in grades 3 through 8 in Pennsylvania take the Pennsylvania System of School Assessment (PSSA) exams. All students take an English Language Arts (ELA) and math assessment, and students in grades 4 and 8 take a science exam as well.

One of the Anchor Goals that drives the work of the School District of Philadelphia (SDP) is that all children will read on grade level by age eight (Anchor Goal 2). To measure student progress toward this goal, SDP has implemented a standardized assessment system for grades K-5 – the AIMSWeb assessment. In this brief, we use data from spring 2018 to examine the relationship between student performance on the AIMSWeb assessment and the English Language Arts PSSA, another assessment used to measure student literacy.

The exploratory research questions were:

- 1) What is the relationship between third grade AIMSWeb raw scores and PSSA-ELA scaled scores?
- 2) What is the relationship between AIMSWeb tier level and third grade PSSA-ELA proficiency level?

AIMSWeb and PSSA Data

AIMSWeb is a universal early literacy screening, benchmarking, and progress-monitoring tool that can be used to measure a student's literacy progress and achievement. In this brief, we use two data points to assess student performance: raw scores and "tier" levels. Students' raw score is the number of correct responses. The Average National Percentile (ANP) rank is determined by comparing raw scores to other students across the nation. Students are considered to be in one of three "tiers," or groupings, based on where their scores fall in the ANP. Students in Tier 1 are considered "At Target," students in Tier 2 are considered in need of "Strategic Intervention," and students in Tier 3 are considered in need of "Intensive Intervention." In other

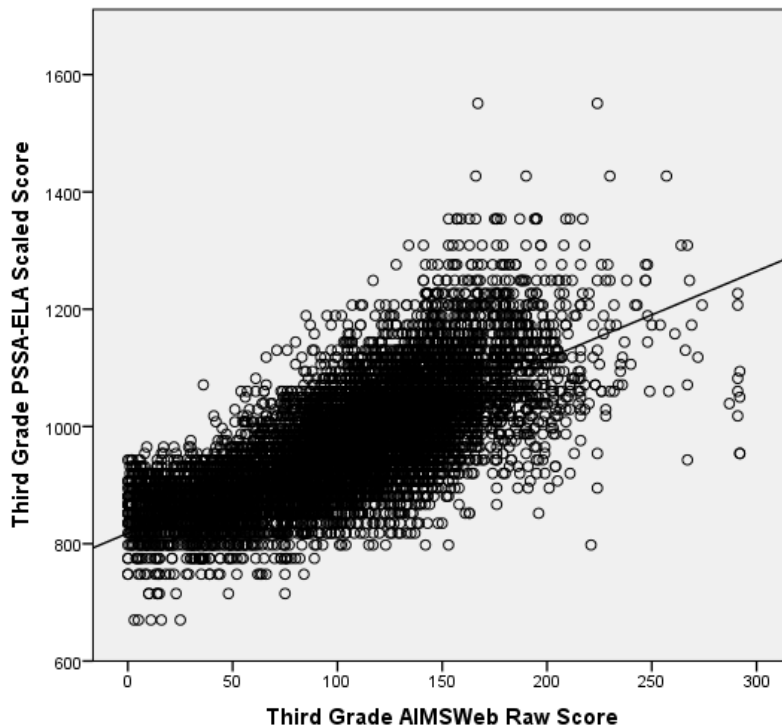
words, Tier 3 students have raw scores that are among the lowest compared to their peers nationally and need to make the most amount of growth to perform on grade level.

The **PSSA** (Pennsylvania System of School Assessments) is a standards-based, criterion-referenced test that is administered to all grade 3-8 students in Pennsylvania. Students receive a scaled score for each assessment based on the questions they answer correctly. Using cut-points that can vary across grade and subject, the scaled score corresponds to one of four proficiency levels: Below Basic, Basic, Proficient, and Advanced. For example, students with a scaled score ranging from 600-904 on the third grade PSSA-ELA score fall in the Below Basic category and students with scores from 905-999 score fall in the Basic category.¹

What is the relationship between third grade AIMSweb raw scores and PSSA-ELA scaled scores?

Third grade students who had both a spring AIMSweb raw score and a third grade PSSA-ELA scaled score in 2018 were included in the analyses (N=10,089). A correlation test showed a moderate positive correlation between AIMSweb and PSSA-ELA scores, $r(10,089)=.72, p<.001$. This means that as AIMSweb scores increase, PSSA-ELA scores also tend to increase. However, for each AIMSweb score, there are a range of PSSA-ELA scores that students earn in third grade (Figure 1).

Figure 1: This scatterplot shows the correlation between AIMSweb raw scores and third grade PSSA-ELA scaled scores is 0.7.



¹For more information about the PSSA, including cut scores, visit the PA Department of Education [website](#).

What is the relationship between AIMSWeb tier level and third grade PSSA-ELA proficiency level?

Almost two-thirds (63%) of the third graders who were in Tier 3 in the spring of 2018 scored Below Basic on the PSSA-ELA that same spring. Of the remaining students, 34% scored Basic and about 3% scored in the Proficient or Advanced categories. Of the third grade students that were in Tier 1, 54% scored in the Proficient category on the PSSA-ELA, and another 14% scored in the Advanced category (Table 1).

Table 1: The percentage of third grade students in each PSSA-ELA proficiency level according to their spring AIMSWeb Tier

		Grade 3 PSSA-ELA Category				
		Below Basic	Basic	Proficient	Advanced	Total
Spring AIMS Web Tier	Tier 3 (Intensive Intervention)	63% (N=2,089)	34% (N=1,145)	3% (N=98)	0% (N=1)	3,333
	Tier 2 (Strategic Intervention)	18% (N=495)	55% (N=1,549)	26% (735)	1% (N=29)	2,808
	Tier 1 (At Target)	4% (N=141)	29% (N=1,140)	54% (2,128)	14% (N=539)	3,948
	Total	2,725	3,834	2,961	569	10,089

Summary of Findings

Overall, there is a moderate positive relationship between 2018 third grade students' spring AIMSWeb scores and their spring third grade PSSA-ELA scores. Students who scored in Tier 3 (Intensive Intervention) were unlikely to score in the Proficient or Advanced categories on the PSSA exam (only 3% of Tier 3 students did not score in the Below Basic or Basic categories). However, a Tier 1 (At Target) score on the spring AIMSWeb did not guarantee that students would score in the Proficient or Advanced categories on the PSSA. Of the students who were in Tier 1 in the spring, 37% also scored in the Basic or Below Basic categories on the PSSA.