Chapter 10. Standards for the 21st Century Learner, PA/Common Core Standards & PSSA Scores

The Pennsylvania System of School Assessment (PSSA) measures how well students have achieved in Reading and Writing (as well as Mathematics and Science) according to the state’s standards. Reading and Writing scores are used in this analysis as they are closely associated with the work of school librarians traditionally and with both the Pennsylvania (PA)/Common Core standards and the 21st Century Learner standards of the American Association of School Librarians (AASL).

The following analyses of 2011 PSSA Reading and Writing scores focus on both ends of the academic achievement spectrum: the percentage of students scoring Advanced and the percentage scoring Below Basic. The questions addressed in this chapter concern the relationship of Advanced and Below Basic PSSA test scores to the perceived assessments by teachers, librarians and administrators about their school library’s program of instruction to address both the 21st Century Learner and PA/Common Core Standards.

- Are students whose library programs are assessed as doing an “excellent” job of teaching 21st Century Learner and PA/Common Core standards more likely to score Advanced?
- And, are they also less likely to score Below Basic?

To the extent that the answers to these questions are positive, assessments by the three educator groups of the instructional program of their school libraries to address these standards are confirmed.

The analysis of how educators assess the library program’s role in teaching PA/Common Core standards and its relationship to PSSA Reading and Writing scores yielded significant results only for the assessments from librarians. As reported in the previous chapter, educators in all three groups are less likely to offer assessments of library program teaching of PA/Common Core standards than 21st Century Learner standards. Among educators of all three types offering assessments, however, their assessments of school library programs in teaching 21st Century Learner and PA/Common Core Standards (i.e., apart from their relationships with PSSA scores) are strongly related to one another. Nevertheless, of the three educator groups, librarians must have the most accurate perceptions of their contributions to teaching English language arts and Reading/Writing in History/Social Studies standards, as their self-assessments of teaching those two PA/Common Core standards are the only ones that consistently relate directly to PSSA Reading and Writing scores. The historical involvement of librarians in those areas likely explains these findings.

21st Century Learner Standards

Across the three educator groups, there is consistent evidence that three of the four 21st Century Learner Standards—Inquiry-Based Learning, Informed Decision-Making, and Knowledge Sharing—by library programs is associated with higher Advanced PSSA scores in both Reading and Writing. Further, for administrators and librarians, Inquiry-Based Learning is singled out as a key standard exerting a positive influence on both Advanced and Below Basic scores. Intriguingly, teachers alone credit this kind of influence to all four 21st Century Learner standards. Possibly, these findings are consequences of the fact that respondents to the teacher survey were most numerous (approaching 1,000), thereby improving the chances of finding statistically significant results for this group.
Administrators

Administrator assessments of the library program’s role in teaching of 21st Century Learner standards are associated with PSSA Reading and Writing scores in several noteworthy ways. While administrator assessments are associated with Advanced scores for all four 21st Century Learner standards, their assessments of library teaching of Inquiry-Based Learning in particular are related to both Advanced and Below Basic scores on Reading and Writing tests:

- More students score Advanced on Reading & Writing when administrators assess as “excellent” (versus less than excellent) the library program’s teaching of all four 21st Century Learner standards—Inquiry-Based Learning, Informed Decision-making, Knowledge Sharing, and Pursuing Personal Growth.

- The positive impact of the library program’s teaching of 21st Century Learner standards on PSSA scores is more dramatic on Writing than Reading.

- When administrators believe students receive excellent library instruction of Inquiry-Based Learning, students are consistently more likely to score Advanced on both Reading & Writing tests.

- Students in the same circumstances are also less likely to score Below Basic on both Reading & Writing tests.

Implementing reading across the curriculum … in our school became a priority. Our librarian became the facilitator of … initiatives to incorporate information literacy and reading strategies in every area. Our librarian presented on professional development days—reading strategies, pre- and post-reading strategies, use of technology in the classroom, research techniques—all were presentations given on various professional development days. Our librarian also worked with our English teachers to develop a research manual for our ninth- and tenth-grade students. Most recently, our librarian, along with other district librarians, presented the Big 6 research model to the district’s English/ Language Arts curriculum committee. With their assistance and guidance, this research model has been adopted by the district as our official research model …

- Intermediate High School Administrator

A year ago our librarian in conjunction with our English Department Head were concerned about promoting reading for fun. The English Department Head … was very concerned that requiring reading was turning off kids to reading for fun. At his request and with the strong support of the librarian, the department heads and administrators discussed and agreed to a plan to have a period of Sustained Silent Reading once a week. … From the first day, it has been very successful. … Our librarian’s … enthusiasm and motivation have been a great influence in emphasizing the importance of reading and encouraging it for all staff and students.

- High School Administrator

Our high school librarian … received [grant] funding for three libraries within the District. With this money, the District was able to increase student reading achievement by 1) increasing access to up-to-date library materials, 2) providing well-equipped, technologically-advanced school library media centers, and 3) training professionally-certified school library media specialists. … This was a huge impact …

- High School Administrator
Note: This chart and the following one compare the PSSA scores of schools whose administrators assess as “excellent” and less than excellent (“good”, “fair”, “poor”, or “don’t know/need more information”) the teaching of 21st Century Learner standards by their library programs. The first chart addresses Reading scores, and the second, Writing scores. Example: Where administrators indicate their libraries do an “excellent” job of teaching Inquiry-Based Learning, schools average 46.0% of students scoring Advanced on PSSA Reading tests. Where they indicate their libraries do less than an excellent job teaching this standard, schools average 38.0% of students scoring Advanced.
Note: This chart focuses on how well administrators believe library programs address the Inquiry-Based Learning standard, and the relationships of those assessments to Advanced and Below Basic scores on both Reading and Writing. Example: Where administrators assess the library program’s role in teaching this standard as “excellent”, schools average 46.0% of students scoring Advanced on Reading. Where they assess the library’s role in teaching this standard as less than excellent, schools average 38.0% of students scoring Advanced.

Teachers

In contrast with administrators, teachers’ assessments of the library program’s teaching of each of the 21st Century Learner standards are associated with improvements in both Advanced and Below Basic PSSA scores on Reading and Writing tests.

- Teacher assessments indicate that more students score Advanced and fewer Below Basic when teachers assess as “excellent” the library program’s teaching of:
  - Inquiry-based Learning
  - Informed Decision Making
  - Knowledge Sharing
  - Pursuing Personal Growth

- As for administrators, the impact of excellent library teaching is more dramatic on PSSA Writing than Reading scores.
I have numerous examples of successful collaborative instruction that has had a direct impact on student learning. Our librarian knows the curriculum for each of the subjects within each grade level, which is no easy task. She is familiar with the state standards and eligible content for the PSSA … Our Social Studies curriculum is project based - there are no textbooks for the students or teachers to use … Our librarian is considered an instructional leader in the school.

- Elementary School teacher

The school librarian and I have collaborated for several years now. [Our co-teaching of the research model] encompasses all of the essential anchors that are required in our Language Arts program. The students are able to read critically, analyze and interpret text, explore the qualities of writing and finally enhance their research skills including: formulating questions or hypothesis to study; presenting information using appropriate media and expressing new understanding about a topic. Being able to collaborate and plan with our librarian has been an invaluable tool. She is constantly looking to collaborate; enhance and develop skills in our students, and to enhance the curriculum … The students we have shared have benefitted immensely from their experiences.

- Elementary School teacher

Our school librarian makes herself available to discuss topics I am working on in my classroom and provides materials that help me implement my lessons. She also teaches some of the material that will be covered in the PSSA … She has a wonderful relationship with the teachers, staff, and students in our building and is an asset to our school.

- Intermediate School teacher

Our school librarian is a godsend … an essential leader in our building. She is asked to wear many hats, and our school would not be successful without her. So many children, faculty and administrators call on our librarian … every day. The children in our school (and I mean almost all) have such a passion for reading. … [O]ur librarian has created this climate in our school and it has affected everyone. … [A] lot of our successes on PSSA … have been influenced positively by our librarian.

- Middle School teacher
Note: This chart and the following one report the relationships between how teachers assess the teaching of all four 21st Century Learner standards and PSSA scores. The first chart focuses on Reading scores; the second, on Writing scores. Example: Where teachers assess library teaching of Inquiry-Based Learning as “excellent”, schools average 44.2% of students scoring Advanced on Reading. Where they assess library teaching of this standard as less than excellent, schools average 40.3% of students scoring Advanced.
Librarians

Similarly to administrators, findings about the relationships between librarians' self-assessments of their teaching of 21st Century Learner standards and PSSA Reading and Writing scores are less general than those of teachers, although in different ways than for administrators.

- Students are more likely to earn Advanced Reading scores if their librarians assess as "excellent" their teaching of the three standards most closely associated with PSSA-oriented instruction: Inquiry-Based Learning, Informed Decision-Making, and Knowledge Sharing.

- Students are more likely to score Advanced and less likely to score Below Basic in Reading if librarians assess as "excellent" their teaching of Inquiry-Based Learning. As for administrators, this finding about librarians' self-assessments underscores the primary importance of the Inquiry-Based Learning standard.

- Students are more likely to score Advanced and less likely to score Below Basic in Writing if librarians assess as "excellent" their teaching of Inquiry-Based Learning and Pursuing Personal Growth. Interestingly, while librarians' self-assessments of their teaching of Pursuing Personal Growth are not related to Reading scores, they are associated with Writing scores. It seems reasonable to speculate that most librarians understand the value of students exploring personal interests to developing Advanced Writing skills—or, at least, to developing beyond Below Basic.

Assessment of (students’) library skills is a very important element that is not mentioned in the survey. I strongly feel that if we (librarians) want to be seen as part of the team, then we must evaluate our students on the skills we are expecting them to master. The classroom teacher cannot assess them on these skills for they do not teach them. … (This is) the librarian’s responsibility. … our PSSA tests reflect the high amount of use we have in the library. I am booked through the entire year with classes. I teach. The classroom teacher teaches. The students learn what is a fact, how to take notes, how to cite the sources, what makes a good source … Assessment and evaluation by the librarian needs to be done and preached continuously.

- Middle School Librarian

As a librarian, there is nothing more rewarding than to have students approach me and ask "what do you recommend next for me to read, I really loved that last book." I have had parents [tell me] their children loved the books that I recommended. The skill of reading and enjoying reading transcends all 21st Century skills. Without that basic skill, nothing else can be achieved.

- Middle School Librarian

The 21st century learner is learning at a rate that education has trouble keeping up with. Educators need to understand this and create curriculum that is of interest, is relevant to and challenges the students of today. Librarians have the opportunity to be at the forefront of this endeavor and should be willing to lead the charge as we move deeper into the 21st century.

- Middle School Librarian

Teachers often come to me to brainstorm units that they want to modify to see how I would embed 21st century skills into the student learning objectives. We have an open door relationship and my willingness and flexibility in helping them keep them coming back. An additional element that prompts teachers to consult me is that I constantly strive to understand pedagogy and 21st century skills. … I believe we desperately need to build a culture of Library Media Specialists who model educational leadership.

- High School Librarian
Advanced PSSA Reading Scores by Excellence of Librarian Assessment of Library Program's Teaching of 21st Century Learner Standards

- Inquiry-Based Learning: 45.5% Excellent, 39.4% Less than excellent
- Informed Decision-Making: 44.7% Excellent, 40.0% Less than excellent
- Knowledge Sharing: 44.8% Excellent, 39.5% Less than excellent

Advanced & Below Basic PSSA Reading & Writing Scores by Excellence of Librarian Assessment of Library Program's Teaching of Inquiry-Based Learning

- Advanced: 45.5% Excellent, 39.4% Less than excellent
- Below Basic: 8.7% Excellent, 11.0% Less than excellent

Reading and Writing categories are shown for both Advanced and Below Basic levels.
[During my tenure] I have seen students begin to think of the library as an essential part of their daily lives. I have convinced them that the library is "always open" … Circulation is up, enthusiasm for new books is up, participation in the PA Young Reader’s Choice challenge, Reading Olympics and a general excitement about coming to library has increased. This school’s PSSA scores are up and we've always met AYP.

- Elementary School Librarian

We do a 7th grade research project after PSSAs in conjunction with the reading teachers to give the kids a taste of the research process. We have had students tell us a few years later how helpful this was to them in high school and beyond.

- Middle School Librarian

I am proud of the program we have built here ... My High School teachers use the library extensively. A research unit that requires library research is written into the English curriculum at each grade level. Using the print collection and our databases, our students are able to access information to complete classroom assignments. They are taught search strategies and proper MLA documentation. In addition, we have a very large fiction circulation. Our students use the library heavily for their own recreational reading needs. It is very rewarding to see our students reading, sharing and discussing books they obtained from the library!

- High School Librarian
Librarians on PA/Common Core Standards & PSSA Scores

Uniquely among the three educator groups, how librarians self-assess their teaching of the PA/Common Core standards—English Language Arts and Reading/Writing in History/Social Studies, Science/Technical Subjects, and College/Career Readiness—is associated with advanced PSSA Reading and Writing scores.

- Students are more likely to score Advanced on Reading and Writing tests when librarians self-assess as “excellent” their own teaching of these standards. (While the percentage of students with Advanced Reading scores is greater for librarians who rate themselves as “excellent” on teaching Reading and Writing for College/Career Readiness, this difference over peers who rate themselves less than excellent on that standard is not significant, indicating that it might not be replicated with a different sample.)

- For two of the PA/Common Core standards—English Language Arts and Reading/Writing in History/Social Studies—librarians’ self-assessments of their teaching of these standards are associated with both Advanced and Below Basic scores on both Reading and Writing tests. Where librarians assess their own teaching of these standards as “excellent”, students are more likely to score Advanced and less likely to score Below Basic. These findings indicate that, for those two standards, the teaching efforts of librarians may make a specific contribution to closing achievement gaps between students with the highest and lowest PSSA scores.

Note: This chart reports the relationships between how librarians assess their own teaching of PA/Common Core standards and Advanced PSSA scores only. Example: Where librarians assess their own teaching of English Language Arts as “excellent”, schools average 44.2% of students scoring Advanced on Reading. Where they assess library teaching of this standard as less than excellent, schools average 38.8% of students scoring Advanced.
Note: This chart reports the relationships between how teachers assess the teaching of two PA/Common Core standards and Advanced and Below Basic PSSA scores on both Reading and Writing tests. Example: For their teaching of English Language Arts, Advanced Reading scores average 44.2% of students at schools where librarians assess their own teaching as “excellent” and 38.8% where they assess their own teaching as less than excellent. For the same standard, Below Basic Reading scores average 8.5% of students at schools where librarians assess their own teaching as “excellent” and 11.6% of students at schools where they assess their own teaching as less than excellent.

Teachers come to me from all subject areas and collaboratively we design lessons that will engage students and teach them how to find timely, accurate, and useful information. [We address h]ow to interpret information and use it to create new ideas or to create new ways of presenting information… Our social studies teacher requires that students read outside the history book and has actually influenced the Language Arts department to select books that correspond with the social studies/history curriculum based on our collaborative selections on historical fiction and creative nonfiction.
- Middle School Librarian

There was a time when I thought my most important role with students was to help them with research: teaching them to locate and use resources efficiently and responsibly, to be 21st century learners, and so on. After over twenty years as a librarian, though, … I feel most professionally fulfilled when I help a student find a book, particularly a student who is not a regular reader, and he or she comes back to me and says “Hey, I loved that book. Do you have any more I might like?” As an educator, … there is nothing like turning on a student to reading because being a reader is empowering and it does, indeed, change lives.
- Junior/Senior High School Librarian

We are committed to involving students in the National History Day Competition. I work with 3 classroom teachers to carry out the design and teaching of lessons that lead students through the [research and writing] process. … National History Day is a primary way in which I teach information literacy skills.
- High School Librarian
Students and some teachers regularly visit the high school library. Research required by Language Arts teachers frequently requires students to utilize databases and print materials. History teachers sometimes require students to use print materials and/or databases. Other teachers utilize the library for computer use--access to a variety of web based sites, etc.

- High School Librarian

Summary

The two previous chapters documented the associations between the value placed on key library practices, the frequency of key library activities, and perceptions of librarian roles, on the one hand, and educators’ assessments of the library’s instructional program to address 21st Century Learner and PA/Common Core standards. The last chapter documented the close associations between the educators’ assessments of how the library program and the school librarian contribute to teaching the two sets of standards.

This chapter took the final analytical step of validating those assessments by measuring their associations with PSSA Reading and Writing scores.

With notable consistency, Advanced Reading and Writing scores tend to be earned by students at schools where administrators, teachers, and librarians believe the library program is “excellent” at teaching all four 21st Century Learner standards: Inquiry-Based Learning, Informed Decision-Making, Knowledge Sharing, and Pursuing Personal Growth.

![Advanced PSSA Reading Scores for Students Whose Educators Assess Library Program's Teaching of 21st Century Learner Standards as Excellent and Less Than Excellent](chart.png)
There is further consensus across the three educator groups about Inquiry-Based Learning. “Excellent” assessments of the library program’s role in teaching the Inquiry-Based Learning standard are associated with fewer students scoring Below Basic on the PSSA Reading and Writing tests.
In the case of PA/Common Core standards, higher percentages of students score Advanced on both Reading and Writing tests where their librarians assess as “excellent” their own teaching of all of these standards: English Language Arts and Reading/Writing in History/Social Studies, Science/Technical Subjects, and College/Career Readiness. In addition, students are more likely to score Advanced and less likely to score Below Basic on both Reading and Writing tests where their librarians assess as “excellent” their own teaching of two of the PA/Common Core standards: English Language Arts and Reading/Writing in History/Social Studies.