Chapter 8. Standards for the 21st Century Learner

In 2007, the American Association of School Librarians (AASL) promulgated its Standards for the 21st Century Learner. Underlying these standards are several common beliefs about why school libraries and librarians are essential to students gaining the learning skills they will need throughout their lives.

- Reading—not just to comprehend, but to develop new understandings—is a foundational, lifelong learning skill.
- Learning requires inquiry—not just the skills required to be lifelong learners, but the inclination to apply them in an increasingly complex world of information.
- Learning, whether face-to-face or via technology, is an inherently social activity that requires exploring information representing diverse perspectives, working collaboratively with others, and using that information, especially via social networking tools, ethically.
- Information and information technology are changing and expanding at such a pace that students must learn the skills they will need in the future to keep pace with change.
- Because of inequalities in society and among schools, it is essential that school libraries and librarians provide access, not just to information and technology, but to an environment in which students can learn and practice 21st century learning skills.

Inquiry-Based Learning

The first AASL standard is to “inquire, think critically, and gain knowledge.” For purposes of this study, this standard is referenced as “Inquiry-Based Learning.” Mastering this standard requires developing critical thinking skills, such as:

- Determining the relevance of information to the subject of inquiry
- Evaluating the accuracy, validity, and appropriateness of information sources
- Identifying different levels of ideas as well as misleading, contradictory, and erroneous information

Informed Decision-Making

The second AASL standard is to “draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge.” For purposes of this study, this standard is referenced as “Informed Decision-Making.” Mastering this standard requires being perceptive and flexible when:

- Analyzing and organizing information
- Exchanging ideas with others
- Making decisions and solving problems
- Creating new products—particularly through writing—to express what one has learned
Knowledge Sharing

The third AASL standard is to “share knowledge and participate ethically and productively as members of our democratic society.” Mastering this standard requires learning ethical and productive approaches to:

- Sharing and reflecting on one’s learning
- Communicating effectively, both orally and in writing
- Using technology to make new knowledge accessible to others

Pursuing Personal Growth

The fourth and final AASL standard is to “pursue personal and aesthetic growth.” Mastering this standard requires developing the initiative, curiosity, and open-mindedness needed to inspire:

- Being a self-motivated consumer of information in a variety of formats, whether for pleasure or lifelong learning
- Linking what one learns to both previous knowledge and experience as well as one’s own immediate interests
- Using social networks and other digital tools to contribute to the learning of others

The three educator groups—administrators, teachers, and librarians—were asked to assess how well their library programs teach each of these standards. They were also asked about key library practices or activities and about librarian roles in their schools.

Throughout this chapter, the findings are illustrated by quotes offered by respondents to the project’s surveys.

Library Practices & Activities

Administrators were asked how much they value key library practices, most associated with academic achievement and student learning in numerous studies. (See Chapter 1.) Their responses ranged from “essential,” “highly desirable,” “desirable,” to “not desirable,” or “don’t know.” Teachers and librarians were asked how frequently they participated in selected activities related to those practices. Administrators were asked about their values, rather than actual practices, on the assumption that their beliefs about school libraries and librarians—apart from actual policies and practices—exert a powerful impact on the culture of the school. Teachers and librarians were asked about the frequency of activities on the assumption that they are in the best position to know what is actually happening and how that might be affecting the learning environment. All three groups were asked to rank the instructional impact of the school library in teaching the 21st Century Standards based on the following choices—“excellent”, “good,” “fair,” “poor,” or “don’t know/not applicable.”

Administrators were asked how much they value the following practices:

- Flexibly scheduled library access
- Librarians and teachers co-teaching units of instruction
- Librarians providing in-service professional development opportunities
- Librarians being appointed to school committees
- Librarians meeting regularly with their principals
- Librarian-teacher collaboration being addressed in teacher evaluations.
Administrators on Library Practices

Across the four Standards for 21st Century Learners, several trends are clear in the responses from administrators:

- Clear majorities of administrators who consider key library practices “essential” also assess the library program’s instructional role in teaching of 21st Century Learner standards as “excellent.” This trend is consistent with at least the past two decades of research about the impact of school libraries and librarians.

- While administrators indicated least enthusiasm for addressing librarian-teacher collaboration in teacher evaluation, that practice is associated with the highest assessments of library teaching of 21st Century Learner standards, according to this study. This trend suggests that, as with testing, when collaboration with the librarian is something upon which teachers are evaluated individually, it is more likely to happen and to be done well.

- Consistently, essential library practices are more strongly related to Inquiry-Based Learning than any other 21st Century Learner standard. This trend is consistent with the growing body of research about the role of inquiry in learning, especially via library programs.

(Our) librarian has tremendously helped continue technology integration and support even after CFF [Classrooms for the Future] funds went away. She is seen as a lead teacher with online learning, Blackboard, H.E.A.T., Web 2.0, Research and Writing, as well as serves on the technology committee and graduation project committee. The administration and librarian have worked closely to implement, organize and manage an "in-house" technology training program called "Tech Flex". It is a professional learning community within the school and is at no cost to the district. It is a great way to continue supporting teaching and learning in the 21st century.

- A High School Vice or Assistant Principal

Excellent Assessments of Library Program’s Teaching of
21st Century Learner Standards by Administrators Deeming
Key Library Practices Essential
Note: This and following charts focus on assessments of the library program’s instructional role in 21st Century Learner standards from educators who deem selected library practices as “essential” or who report engaging in selected library activities more frequently. Example: Of administrators who deem it essential that access to their libraries be scheduled flexibly, 62.6% assess their library program’s contribution to teaching Inquiry-Based Learning as “excellent”.

Teachers on Library Activities

Across all four 21st Century Learner standards, teachers who report more frequent engagement in key library activities are more likely to assess the instructional role of the school library program as “excellent.”

From the perspective of teachers, the frequency of library activities associated with “excellent” assessments of the instructional role of the school library program in teaching 21st Century Learner standards varies from one activity to another.

At least weekly activities linked with “excellent” teacher assessments of library teaching are:

- Classes/students visit library on a flexible schedule (though, for Knowledge Sharing, this link is not statistically significant)
- Librarian and teachers collaborate on instruction
- Librarian helps teachers learn new information-seeking skills

At least monthly activities linked with “excellent” teacher assessments of library teaching are:

- Teacher accompanies and remains with the students in the library
- Teacher invites the librarian to teach or co-teach in the classroom

Similarly to administrators, among teachers, the link between more frequent library activities and “excellent” assessments of library teaching is consistently strongest for Inquiry-Based Learning when compared to the other three 21st Century Learner standards.

My librarian and I have maximized the learning for all of my students. We plan and meet regularly to provide a team approach to teaching common core and 21st century skills to my entire 5th grade classroom. Through library resources, her expertise in research and current best practices, and my commitment to technology, we have seen incredible growth in information literacy and higher order thinking skills. Library is not seen as a special class, but rather an area to apply to all aspects of the curriculum. It is a truly rewarding experience for not only my students, but for me as well.
- Intermediate School teacher

My department views our librarian as a co-teacher. We work with him to develop curriculum and 21st century skills. Our teachers co-teach with (him) to deliver the curriculum. He was instrumental in helping our Global Civics students understand how to analyze documents, evaluate the validity of sources, recognize varying perspectives on political, economic and social issues and write an informed essay based on findings. He has worked with my global scholars students to create presentations on global topics using the latest technology so that the presentation can be viewed and discussed with students worldwide.
- High School teacher

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Working closely with the library staff has transformed my classroom environment and curriculum. Collaborative co-planning with the library staff provides clear understandings between us and provides an opportunity to co-teach the lessons. The library staff embeds 21st century skills into my curriculum, ensuring that the Common Core Standards are being met. I return to collaborate in the library for all of my research and multimedia projects, and not just the research paper, because the quality of the lessons far surpasses the kind of lessons that I can provide myself... My biggest success while working with a librarian
is receiving the 2010 ISTE SIGMS Technology Innovation Award, which highlights successful collaboration between a school librarian and classroom teacher.
- High School teacher

Librarians on Library Activities

Generally, librarians are less likely than administrators and teachers to self-assess the library program’s—i.e., their own—teaching of 21st Century Learner standards as excellent.

Still—across the four standards and the five activities—librarians who report engaging in key activities at least weekly are dramatically more likely to self-assess their teaching of 21st Century Learner standards as excellent than their peers who report engaging in those activities less than weekly.

The three library activities most strongly associated with “excellent” self-assessments all concern the processes of collaborating with teachers on the design and delivery of instruction.

- At least weekly instructional collaboration between librarian and teacher consistently demonstrates the strongest relationship with “excellent” teaching self-assessments by librarians.

- The next strongest relationships involve teachers inviting their librarian into their classrooms and the librarian helping teachers learn new information skills, both also on at least a weekly basis.

Notably, the only 21st Century Learner standard for which there are any non-significant differences based on frequency of library activities reported by librarians is Pursuing Personal Growth. In that instance, though there are consistent differences in “excellent” teaching self-assessments based on how frequently librarians report teachers accompanying their students to the library and inviting the librarian into the classroom, those differences are not statistically significant.

![Bar chart showing the percentage of librarians assessing their program's teaching of inquiry-based learning as excellent by frequency of library activity.](image)
Note: This and following charts compare 21st Century Learner teaching assessments of librarians who report engaging in selected library activities at least weekly and those who report engaging in those activities less than weekly.

Example: Of librarians who report classes or students visiting their libraries on a flexible schedule “at least weekly”, 27.9% assess their role in teaching Inquiry-Based Learning as “excellent”. By contrast, of librarians who report engaging in that activity less than weekly, only 13.5% assess the library program’s role in teaching that standard as “excellent”.

Librarians Assessing Library Program’s Teaching of Informed Decision-Making as Excellent by Frequency of Library Activity

Librarians Assessing Library Program’s Teaching of Knowledge Sharing as Excellent by Frequency of Library Activity
Our district offers flexible scheduling in the libraries of all schools, including elementary. The best lessons that occur in my library are those where the teacher is a truly collaborative partner. We plan together, decide which parts of the lesson each of us will teach (or co-teach), plan for some type of formal or informal assessment, and schedule enough time to allow the students to learn and utilize their 21st Century research skills. They also schedule time in the library regularly so that students become familiar and comfortable with using and enjoying the materials. The most library-savvy students I work with are allowed to come to the library often for both class work and to check out materials. These are the students who know how to find things and will search out materials for research and pleasure.

- Elementary School Librarian

Many of the successes in the high school library are seen on an individual basis. Examples include helping a student find that one book that they really want, steering a student who claims they don't like to read to a book that captures their imagination, assisting a student in finding and understanding an information resource for a school project, or helping them learn a new tool for research or presentation…Understanding how to find, use, understand, manage, and present information will be key to the success of our students in the future. Working with teachers to integrate these skills into the content area curriculum projects is something we work on constantly. By doing this, we hope to give our students the skills and thought processes to be critical and thoughtful consumers of information in the future.

- High School Librarian
Administrators, Teachers & Librarians on Library Practices & Activities

The three educator groups—administrators, teachers, and librarians—express considerable consensus about how 21st century school library programs work best.

- When administrators value flexible scheduling of library access and teachers and librarians report it happening more frequently, members of all three groups are more likely to believe library programs do an excellent job of teaching 21st Century Learner standards.

- When administrators value collaboration between librarians and teachers and those educator groups report working together more frequently (i.e., co-teaching as well as working together generally in both library and classroom), they also tend to believe the instructional role of the school library program in teaching standards is “excellent.”

- When administrators value librarians being providers of in-service professional development to teachers in their schools and when teachers and librarians report librarians providing this kind of leadership more frequently, assessments of the instructional role of the school library program in teaching standards are most likely to be “excellent.”

Librarian Roles

All three groups of educators were asked about the roles librarians play or should play in their schools. Administrators, as key leaders, were asked what roles they desire that librarians play. Teachers were asked what roles their librarians actually play. And librarians were asked in what roles they believe their principals and teachers perceive them.

Administrators on Desired Librarian Roles

- Majorities of administrators who rate library program teaching as “excellent” for all four Standards for the 21st Century Learner express the desire that their librarians play four roles:
  - In-service provider
  - School leader
  - Technology instructor
  - Curriculum designer

- The in-service provider role is most popular with administrators who believe their library programs do an excellent job of teaching 21st Century Learner Standards.

- Library excellence in teaching these standards is also associated by strong majorities of administrators with the desirability that librarians serve as school leaders and technology instructors, and—to a slightly lesser degree—curriculum designers.

- For the Knowledge Sharing standard, overwhelming majorities of administrators endorse the roles of information resources manager and instructional support, while for Pursing Personal Growth standard, a strong majority of administrators endorse the instructional support role.
Our school librarian is an educational leader. She routinely collaborates with classroom teachers to integrate 21st century skills across the curriculum. She promotes reading and literacy through a variety of programs including summer reading, Read Across America Week, and a variety of school-based activities that are fun and engaging for students and staff.

- An Elementary School Principal

Our librarian makes every effort to support and help teachers integrate their teaching across the curriculum utilizing the expertise of our librarian. It is an effective and necessary element to provide this opportunity to students for 21st century learning. I can't imagine teachers not having the expertise of a certified librarian to provide assistance and guidance, especially with the element of research.

- An Elementary School Principal

**Librarian Roles Desired by Administrators Assessing Library Program’s Teaching of All 21st Century Learner Standards as Excellent**

<table>
<thead>
<tr>
<th>Role</th>
<th>Inquiry-Based Learning</th>
<th>Informed Decision-Making</th>
<th>Knowledge Sharing</th>
<th>Pursuing Personal Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-service provider</td>
<td>76.0%</td>
<td>76.1%</td>
<td>74.4%</td>
<td>73.7%</td>
</tr>
<tr>
<td>School leader</td>
<td>65.1%</td>
<td>66.4%</td>
<td>66.7%</td>
<td>65.3%</td>
</tr>
<tr>
<td>Technology instructor</td>
<td>63.6%</td>
<td>62.8%</td>
<td>60.7%</td>
<td>62.7%</td>
</tr>
<tr>
<td>Curriculum designer</td>
<td>57.4%</td>
<td>58.4%</td>
<td>56.4%</td>
<td>52.5%</td>
</tr>
</tbody>
</table>

Note: Throughout this section, the focus is on educators who assess the library program’s role in teaching 21st Century Learner standards as “excellent”. This and following charts for the three educator groups report the percentage of respondents from that group who find desirable a certain librarian role. Example: Of administrators who assess the library program’s role in teaching Inquiry-Based Learning as “excellent”, 76.0% identify in-service provider as a desirable role for a librarian.
The frequency with which administrators associate excellent library teaching of all 21st Century Learner Standards with four roles—in-service provider, school leader, technology instructor, and curriculum designer—suggests that administrators who experience strong library programs and highly effective librarians understand the cross-cutting nature of the librarian’s most influential roles, and the extent to
which they affect all teachers and students, the entire curriculum, and how well technology is integrated with curriculum and instruction.

The desirability of the librarian as an instructional resources manager to almost all administrators who assess library teaching as “excellent” for Knowledge Sharing suggests a recognition of the librarian’s role as a facilitator of teaching that standard.

Similarly, administrators who assess library teaching as “excellent” for both Knowledge Sharing and Pursuing Personal Growth seem to acknowledge that the librarian encourages these activities by helping to ensure that teachers know of, and have access to, resources that undergird instruction, whether it is delivered by the teacher, the librarian, or both.

**Teachers on Perceived Librarian Roles**

Of teachers assessing the instructional role of the school library program in teaching 21st Century Learner Standards as “excellent,” majorities perceive librarians in an even wider array of roles. The frequency with which they identify each perceived role produces the same rank order, regardless of standard.

- **Very large majorities of these teachers perceive their librarian as:**
  - Instructional resources manager
  - Teacher
  - Reading motivator
  - Co-teacher
  - Instructional support

- **Smaller majorities of these teachers perceive their librarian as:**
  - Technology instructor
  - School leader
  - In-service provider

The five most popular roles suggest that these teachers are most keenly aware of the impact of roles that affect both themselves and their students (teacher, co-teacher), roles that primarily affect their own teaching effectiveness (instructional resources manager, instructional support), and roles that primarily affect their students, especially the most needy ones (reading motivator).

Though smaller majorities of these teachers endorse the other three of the four roles desired by administrators (technology instructor, school leader, in-service provider), this does constitute some acknowledgement from teachers who have experienced more effective 21st century school library programs that the librarian plays a larger leadership role in the school—one that extends beyond the librarian’s more immediate impact on instruction of students. The librarian is also a teacher of teachers.
Librarian Roles Perceived by Teachers Assessing Library Program’s Teaching of Inquiry-Based Learning as Excellent

- Instr resources mgr: 85.1%
- Teacher: 83.8%
- Reading motivator: 81.4%
- Co-teacher: 79.6%
- Instructional support: 73.0%
- Technology instructor: 57.7%
- School leader: 55.3%
- In-service provider: 54.4%

Librarian Roles Perceived by Teachers Assessing Library Program’s Teaching of Informed Decision Making as Excellent

- Instr resources mgr: 86.7%
- Teacher: 85.5%
- Reading motivator: 81.5%
- Co-teacher: 79.3%
- Instructional support: 74.4%
- Technology instructor: 59.6%
- School leader: 56.9%
- In-service provider: 55.4%
I teach reading, and I wanted to change up the independent novel reading unit that I have done in the past to incorporate more of the 21st century skills. (So) I called our librarian and within a ten-minute conversation, (she) had talked me through setting up blogs for my students so they can post not only their reactions and thoughts but also respond to those of their classmates…. she has also helped me to select some of the best new literature for literature circles in the tenth grade classrooms, and is the "go-to" source for finding literature that will appeal to our students… the impact that she has had on our school cannot be truly conveyed. She has revitalized the library and fostered a genuine love of reading among both our students and our faculty -- including the faculty book club (which she started).

- High School teacher

Librarians on Librarian Roles Attributed to Principals & Teachers

When asked to report how they believe their principals and teachers perceive them, librarians who self-assess their teaching of 21st Century Learner Standards as “excellent” agree with their administrators and teacher colleagues about different roles.

For all four 21st Century Learner standards, excellent teaching self-assessments are most consistently linked with beliefs that principals and teachers perceive them as:

- In-service provider
- Instructional resources manager
- Instructional support
- Reading motivator
- School leader
- Teacher
- Technology instructor

When these librarians’ responses are compared to those of corresponding administrators and teachers, however, it is apparent that librarians agree with administrators about some roles and with teachers about other roles.

- Teachers and librarians who assess library teaching of 21st Century Learner Standards as “excellent” are more likely to agree about the roles more immediately associated with instruction: instructional resource manager, instructional support, reading motivator, and teacher.

- Administrators and librarians who assess such library teaching as “excellent” are more likely to agree about the larger roles played by the librarian: in-service provider, school leader, and technology instructor.

Generally, librarians who self-assess their 21st Century Learner standards teaching as “excellent” are slightly more likely to attribute most librarian roles to teachers than administrators, but there are notable exceptions:

- Compared to other roles, these librarians are far more likely to attribute two roles to teachers than principals: co-teacher and technology troubleshooter. Perhaps this discrepancy points to what these librarians perceive as a reality gap between principals and teachers. Principals might be expected to value these roles; but teachers are the ones their librarian colleagues can be sure will value them highly, as they might have the strongest and most frequent impact on the teacher’s own work experience. Indeed, when responses from administrators and teachers making similar assessments were examined, that tended to be true.
Conversely, these librarians expect that their administrators are more inclined to see them in certain roles than their teacher colleagues. Those roles are school leader, in-service provider, and curriculum designer. Again, when responses from other educators making similar assessments were examined, that was found to be true.

Notably, isolated role results for librarians proved not to be statistically significant (NS in the following charts), but this is most likely because of the aforementioned fact that librarians were the least likely of the three groups to assess library teaching of 21st Century Learner Standards as “excellent.” These rare failures to achieve statistical significance can most likely be trace to the small numbers of librarians self-assessing their teaching as “excellent.”

Perceived Librarian Roles Attributed to Principals & Teachers by Librarians Assessing Library Program’s Teaching of Inquiry-Based Learning as Excellent

A successful library program reaches out on all levels. You know it works when classroom teachers are excited about using a new database that you helped to purchase and implement, … when a classroom of students actually applaud when learning how to easily locate information for a project, and … when a struggling reader is returning a book, and with face aglow says, “This is the BEST book ever!”

- Elementary School Librarian

I am the librarian, so choosing just one story of success is very difficult. Every time a student who "does not like to read" finds a book of interest on my shelves, with or without my help, it is success. Every time I can work with a teacher to provide the best pool of resources for a project and students are therefore able to present a project that exceeds the standard, it is success. Every time I can show a teacher an easier way to do something with some technology we work with every day, it is success. Each encounter with a student that results in increased … literacy, self-awareness or dedication to a goal is success.

- Middle High School Librarian

As a Library Media Specialist, I believe that I encourage life-long learning by providing a wide variety of information sources and by instructing both students and faculty in effective information seeking strategies.
By providing these tools and instructions, I hope to help produce independent learners who have a thirst for knowledge and the skills necessary in obtaining answers and solving problems throughout their lives… We have entered an age of an information revolution… Whereas the 20th century librarian was a master of information, the 21st century librarian is a digital path leader and an instructor of transliteracy: that is, the ability to be literate across multiple media.

- High School Librarian
Perceived Librarian Roles Attributed to Principals & Teachers by Librarians Assessing Library Program’s Teaching of Personal Growth as Excellent

- Reading motivator: 69.9% attributed to principal, 88.8% attributed to teachers
- Teacher: 85.9% attributed to principal, 90.6% attributed to teachers
- Instructional support: 79.9% attributed to principal, 90.4% attributed to teachers
- Instr resources mgr: 51.7% attributed to principal, 61.7% attributed to teachers
- Technology instructor: 64.4% attributed to principal, 61% attributed to teachers
- School leader: 57% attributed to principal, 61% attributed to teachers
- In-service provider: 51.7% attributed to principal, 56.8% attributed to teachers
- Technology troubleshooter: 53.0% attributed to principal, 66.4% attributed to teachers
- Co-teacher: 53.0% attributed to principal, 66.4% attributed to teachers
- Curriculum designer: 40.9% attributed to principal, 53.0% attributed to teachers

NS = not significant (i.e., though high, not significantly higher than those assessing < excellent)
Administrators, Teachers & Librarians on Librarian Roles

Generally, educators who assess the library program’s instructional role in teaching 21st Century Learner standards as “excellent” in their schools tend also to be the ones who associate librarians with key school leadership roles. For administrators, this especially includes roles that affect the larger school environment—school leader, technology instructor, and in-service provider. For teachers and librarians, favored roles have the most direct effects on the teaching and learning experiences—co-teacher, instructional resources manager, instructional support, and teacher.

Summary

The analysis presented in this chapter documents the strong associations between how well educators—administrators, teachers, and librarians—believe their library programs teach 21st Century Learner Standards, on the one hand, and, on the other:

- the library practices administrators value
- the library activities teachers and librarians report engaging in most frequently
- librarian roles desired by administrators, perceived by teachers, and expected from principals and teachers by librarians.

The following chapter presents a parallel analysis, exploring the relationships between these three sets of factors and educators’ assessments of the library program’s instructional role in teaching PA/Common Core Standards.