



Jersey Roots, Global Reach

Reading between the Lines: School Libraries and the Common Core Standards

**A Position Paper of The Center for International Scholarship in School Libraries (CiSSL),
Rutgers The State University of New Jersey**

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I. Introduction

The Center for International Scholarship in School Libraries (CiSSL) at the School of Communication and Information, Rutgers The State University of New Jersey aims to inform and transform teaching and learning through formal research and initiatives to bring research to practice. This position paper examines how the instructional practices of school librarians align with key learning outcomes of the Common Core State Standards (CCSS): Information/research processes and critical thinking; improvement of reading comprehension and critical reading; and digital and cultural literacies. Central to these competencies and CCSS' goal of college and career readiness is the work of school librarians in supporting the emerging print and digital literacies of young people and their ability to process information and use evidence to construct knowledge. It is the position of CiSSL that the school library is an essential component of a 21st century education.

II. Literacy Issues, Past and Present

When Rodney Flesch's book, *Why Johnny Can't Read—and What You Can Do About It* (1955), criticized sight word/whole language instruction it became a wake-up call that put reading on the U.S. educational agenda. Research spanning four decades presented three themes essential to the CCSS's approach to literacy education. Chall's (1967) study of research and practice validated the reinstatement of phonics instruction. In subsequent research Chall (1983) identified reading as a staged process from learning to read to reading to learn. Later research (Chall, Conrad and Harris-Harpies, 1991) documented the relationship between a decline in the difficulty, or text complexity of textbooks between 1945 and 1975 and lower SAT scores. These findings are the backbone of the Common Core approach to teaching and developing literacy.

Consensus, however, has not been the earmark of reading research or practice in the U.S. In the 1980's the re-emergence of whole language sparked a reading war that raged for almost two decades. Whole language advocates denigrated decoding text in favor of a holistic approach, claiming that the re-instatement of phonics had not resulted in improved reading test scores. Armed with 60 years of supporting research, whole language advocates offered an "easy way" to reading and writing: a literature-based approach (Goodman, 1986) to language development that included independent reading, cooperative learning, and critical thinking embedded in interdisciplinary themes. Whole language, however, did not prove to be the cure for what was called a reading crisis. Phonics proponents attributed a decline in reading test scores in the 1990's to whole language instruction while whole language advocates pointed to poverty as the underlying cause of low reading scores and poor reading performance of economically disadvantaged children (Chall, Jacobs, and Baldwin, 1990). No Child Left Behind legislation (2002) addressed low student achievement and high drop-out rates by establishing accountability for every state through high stakes testing based on minimal competencies for all students. Reading practice reverted to phonics instruction for early grades. "A Time to Act" (Carnegie Corporation of New York, 2009) drew attention to supporting the developing comprehension of "adolescents," defined in the reading research as fourth through twelfth grade students, and funding became available for remediation initiatives that relied on whole language strategies. Despite these measures, the reading scores reported by the National Assessment of Educational Progress (NAEP) have been essentially unchanged from 2002 to 2005 at grade 4 and have declined markedly at grade 8 (O'Neill, 2005). The trend in flatlined scores continues in the most recent NAEP report (National Center for Education Statistics, 2011). These results raise questions about effective reading practices that do not synthesize literacy research findings to include a balanced approach to teaching reading and supporting emerging literacy of older students.

Section II of this paper explores the Common Core standards for English Language Arts (ELA) that focus on reading, inquiry learning, and digital and cultural literacies. Section III analyzes how school librarians are prepared to deliver the learning environment, resources, and instructional strategies that are critical to the implementation of the Common Core standards.

III. How Common Core Defines 21st Century Literacy and Learning

An Overview

Common Core Standards for ELA and Mathematics constitute the first state-led initiative in the United States to set learning standards intended for implementation across states. Common Core targets language and literacy competencies, "...to create the next generation of K-12 students in order to ensure that all students are college and career ready in literacy no later than the end of high school." (National Governors Association, 2010) The Common Core standards for ELA, which are also taught in History/Social Studies, Science, and Technical Subjects, build on the foundation laid by state content standards. The Common Core functions as a spiraling curriculum with a "... focus on core conceptual understandings and procedures starting in the early grades, thus enabling teachers to take the time needed to teach core concepts and procedures well—and to give students the opportunity to master them." (National Governors Association, 2010)

The standards target core concepts in reading and thinking that are meant to be taught concurrently with existing state standards. They “... lay out a vision of what it means to be literate in the twenty-first century” (National Governors Association, 2010) that includes:

- Improved reading comprehension and critical reading;
- Information processing, research skills, and critical thinking;
- Digital and cultural literacies.

While “...the standards do not mandate such things as a particular writing process or the full range of metacognitive strategies...,” (National Governors Association, 2010), there are strong implications for teaching. “The standards are 1) research and evidence-based; 2) aligned with college and work expectations; 3) rigorous and 4) internationally benchmarked.” (National Governors Association, 2010) Each standard is included “...only when the best available evidence indicated that its mastery was essential to college and career readiness in a twenty-first century, globally competitive society.” (National Governors Association, 2010) The Common Core standards do not intend to add more testing to current assessment practices, but to provide a shared set of standards to develop high-quality tests that address higher order thinking as it translates to disciplinary knowledge.

Improved Reading Comprehension and Critical Reading

Phonics instruction is the method of choice for teaching children how to read. Improved reading comprehension is developed in the context of building disciplinary knowledge for adolescents. Common Core applies an integrated model of literacy that makes connections among reading, writing, speaking and listening as well as language strands for conceptual clarity. (National Governors Association, 2010). For example:

Standard 9 stresses the importance of the writing-reading connection by requiring students to draw upon and write about evidence from literary and informational texts. Because of the centrality of writing to most forms of inquiry, research standards are prominently included in this strand, though skills important to research are infused throughout the document. (National Governors Association, 2010)

Speaking and listening standards not only require oral and interpersonal skills, but collaborative learning that demonstrates students can

...work together, express and listen carefully to ideas, integrate information from oral, visual, quantitative, and media sources, evaluate what they hear, use media and visual displays strategically to help achieve communicative purposes, and adapt speech to context and task. (National Governors Association, 2010)

Underlying the integrated model of literacy is the strong presence of language, its structure, and grammar, which sets a framework for language usage.

The standards require “... students to be proficient in reading complex informational text independently in a variety of content areas.” (National Governors Association, 2010). They mandate a balanced approach for younger grades [of informational and literary texts] with an increasing proportion of informational text in the upper grades” as shown in Table 1.

Grade	Literary	Information
4	50%	50%
8	45%	55%
12	30%	70%

Table 1: Distribution of Literary and Informational Passages by Grade in the 2009 NAEP Reading Framework

National Assessment Governing Board, U.S. Department of Education. (2008). Reading Framework for the 2009 National Assessment of Educational Progress. Washington, DC: U.S. Government Printing Office.

The concept of text complexity and the growth of comprehension "... places equal emphasis on the sophistication of what students read and the skill with which they read.

Standard 10 defines a grade-by-grade "staircase" of increasing text complexity that rises from beginning reading to the college and career readiness level. Whatever they are reading, students must also show a steadily growing ability to discern more from and make fuller use of text, including making an increasing number of connections among ideas and between texts, considering a wider range of textual evidence, and becoming more sensitive to inconsistencies, ambiguities, and poor reasoning in texts. (National Governors Association, 2010)

Common Core Standards require that students read challenging texts beyond the level of textbooks. A selection process of texts involves: 1) Qualitative evaluation of text that considers levels of meaning, structure, language conventionality and clarity, and knowledge demands; 2) Quantitative evaluation of text that considers readability measures and other scores of text difficulty; 3) Matching reader to text and task: Reader variables include motivation, knowledge, and experiences, and task variables, such as purpose and the complexity generated by the task assigned and the questions posed. (National Governors Association, 2010)

Text is placed into text complexity grade bands (Table 2) which consist of re-aligned Lexile ranges that match the Common Core Standards. The grade bands overlap to become grade ranges from kindergarten to first grade through eleventh grade to college and career readiness (CCR).

Grade Band	Current Lexile Band	"Stretch" Lexile Band*
K-1	N/A	N/A
2-3	450L-725L	420L-820L
4-5	645L-845L	740L-1010L
6-8	860L-1010L	925L-1185L
9-10	960L-1115L	1050L-1335L
11-CCR	1070L-1220L	1185L-1385L

Table 2: Common Core Standards Grade-Bands

National Governors Association. (2010). Common Core State Standards for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects, Appendix A. Washington, D.C.: Author.

Students are expected to read texts from a particular text complexity grade band each year and show an increasing ability to comprehend and make use of the text. Critical reading is a cornerstone of developing comprehension. Grade 6 students, for example, are expected to: determine a central idea and how it is conveyed through details; determine an author’s point of view or purpose and explain how it is conveyed in the text; compare and contrast one author’s presentation of events with another author’s; read and comprehend literary nonfiction in the grades 6-8 text complexity band proficiently, with scaffolding as needed in the high end of the range. (National Governors Association, 2010).

The integrated model of literacy consistently asks students to develop reading, writing, speaking, and listening skills in every grade level.

Information Processing, Research Skills and Critical Thinking

CCSS identify “research” as the fourth R and expect that students will perform original research to build and present knowledge. The standard states they will:

Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. (National Governors Association, 2010)

Students will “...draw evidence from informational texts to support analysis, reflection, and research.” (National Governors Association) and

Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation. (National Governors Association, 2010)

Common Core recognizes the importance of information processing and the use of information as the raw material for building disciplinary knowledge through inquiry.

To be ready for college, workforce training, and life in a technological society, students need the ability to gather, comprehend, evaluate, synthesize, and report on information and ideas, to conduct original research in order to answer questions or solve problems, and to analyze and create a high volume and extensive range of print and nonprint texts in media forms old and new. The need to conduct research and to produce and consume media is embedded into every aspect of today's curriculum. In like fashion, research and media skills and understandings are embedded throughout the Standards rather than treated in a separate section. (National Governors Association, 2010)

The standards support application of knowledge as the grist for critical thinking. The expectation is that students learn to value and use evidence.

Students cite specific evidence when offering an oral or written interpretation of a text. They use relevant evidence when supporting their own points in writing and speaking, making their reasoning clear to the reader or listener, and they constructively evaluate others' use of evidence. (National Governors Association, 2010)

The Common Core concept of shared responsibility for the integrated model of literacy instruction in reading, writing, speaking, listening, and language indicates educators work collaboratively using cross and interdisciplinary approaches to literacy and language building.

The expectation is that students establish a base of knowledge across a wide range of subject matter by engaging with works of quality and substance. They become proficient in new areas through research and study. They read purposefully and listen attentively to gain both general knowledge and discipline-specific expertise. They refine and share their knowledge through writing and speaking. (National Governors Association, 2010)

Digital and Cultural Literacies

Common Core underscores the importance of improving reading comprehension across diverse media platforms. The standards require that students engage in critical reading in rich information environments, both print and digital, and that "... they use technology and digital media strategically and capably." (National Governors Association, 2010) Competencies in use of digital text include the use of technology.

Students employ technology thoughtfully to enhance their reading, writing, speaking, listening, and language use. They tailor their searches online to acquire useful information efficiently, and they integrate what they learn using technology with what they learn offline. They are familiar with the strengths and limitations of various technological tools and mediums and can select and use those best suited to their communication goals. (National Governors Association, 2010)

Common Core standards expect that students "... come to understand other perspectives and cultures as they develop cultural literacy.

Students appreciate that the twenty-first-century classroom and workplace are settings in which people from often widely divergent cultures and who represent diverse experiences and perspectives must learn and work together. Students actively seek to understand other perspectives and cultures through reading and listening, and they are able to communicate effectively with people of varied backgrounds. They evaluate other points of view critically and constructively. Through reading great classic and contemporary works of literature representative of a variety of periods, cultures, and worldviews, students can vicariously inhabit worlds and have experiences much different than their own. (National Governors Association, 2010)

The standards are designed to promote "...wide, deep, and thoughtful engagement with high quality literary and informational text that builds knowledge, enlarges experience, and broadens worldviews." (National Governors Association, 2010)

IV. School Library as a 21st Century Learning Commons for Common Core Teaching

School Libraries and Student Achievement

When students come to the school library their time is productive. When they come here for lunch, that's 20 more minutes of educational time... [The school library] improves our students' standardized test scores and student achievement. You want me to tell you how? It's because our kids like being here. (Principal. Todd, Gordon and Lu, 2011, p. 132)

The quotation above and subsequent quotations in this section are cited from a recent CiSSL study of New Jersey school libraries (Todd, Gordon and Lu, 2011) that explores how focus groups comprised of principals, curriculum supervisors, and teachers view the contributions of their school libraries to learning in twelve elementary and secondary schools. Every principal in the study viewed the school library as an extension of the classroom, providing the resources, time, and professional help that enables students to become independent learners. They see the connection between the school library and self-directed, motivated learning and how it relates to better test scores.

There is a research tradition of school library impact studies that documents the statistically significant effects of school libraries on student achievement as measured by standardized tests (Scholastic Publishing, 2008). These studies use t-tests, bivariate correlation, factor analysis, and multiple regression analysis to isolate the variables that affect achievement, such as the socio-economic status of students, to ensure statistical significance of the results. Students' higher test scores correlate with:

- 1) The size of the school library staff (Baxter and Smalley, 2003; Baumbach, 2002; Lance, et al., 2001; Smith, 2001; Lance, et al., 2000; Lance, et al., 1999).
- 2) Full-time/certified school librarians (Callison, 2004; Rodney, et al., 2002; Lance, et al., 2000; Lance, et al., 1999).

- 3) Frequency of library-centered instruction (Lance, et al., 1999) and collaborative instruction between school librarians and teachers (Lance, et al., 2005; Lance, et al, 2001; Lance, et al., 2000).
- 4) Size or currency of library collections (Burgin and Bracy, 2003; Smith, 2001; Lance, et al., 2000).
- 5) Licensed databases through a school library network (Lance, et al., 2002).
- 6) Flexible scheduling (Lance, et al., 2005; Rodney, et al., 2003).
- 7) School library spending (Baxter and Smalley, 2003; Lance, et al., 2001).

The most recent school library impact study documents the impact on student achievement of a full-time, certified school librarian, the size of the book collection, access to digital resources, library access, and funding for library resources (PA School Library Project, 2012).

School Libraries and Deep Learning

What I see as the primary things that happen [in the school library] are how kids can move on to be problem solvers, lifelong learners, thinkers, inquirers for the rest of their lives. (Principal. Todd, Gordon and Lu, 2011, p. 137).

Principals in CiSSL study acknowledge that the contribution of school libraries to student achievement goes beyond minimal competencies and standardized test scores to address deep learning. The largest study conducted on the effectiveness of school libraries in Ohio reports that 99.4 percent of students in grades 3 through 12 believe school libraries and their services help them become better learners (Todd and Kuhlthau, 2004). Their voices clearly tell us that an effective school library, led by a credentialed school librarian, plays a critical role in facilitating student learning through knowledge building. This study, replicated in Delaware (Todd and Heinstrom, 2006) and Australia (Hay, 2005), yielded similar results: School libraries are powerful agents of learning, central to engaging students in the transformation of information into deep knowledge and understanding, and providing them with life skills to continue living, learning and working in an information and technology intense world.

Instruction is central to what school librarians do. It is the organizing principle of school libraries (AASL, 2009) that drives a mission to support learning and teaching in schools. Revised learning standards shift the focus from information to learners and their information use (AASL, 2007), expanding the definition of information skills to include reading and thinking as well as information searching and retrieving. This vision re-defines the functions of facility, collection, and staffing of school libraries. No longer conceived as a biblio-centric warehouse for its collection, the school library is a Learning Commons (Loertscher, Koechlin, and Zunan, 2008), or well-resourced laboratory for inquiry and problem-based collaborative teaching and learning. The collection contains rich and diverse reading materials and electronic delivery systems that ensure quick, multi-user access. The school library levels the playing field for struggling and reluctant readers, Special Education students, English Language Learners, and socio-economically disadvantaged youth who have limited or no access to reading materials and digital devices.

CCSS calls for diminished reliance on textbooks and a shift to primary and secondary sources. The diverse collection of a Learning Commons is a cost-effective, shared resource that provides reading materials across grade levels, content areas, and media. The school library showcases disciplinary knowledge in all media formats and applies cross disciplinary instructional approaches. A teacher commented in the CiSSL study of highly effective school librarians that the school library is the only place in the school where all the disciplines come together (Todd, Gordon and Lu, 2011). The school librarian is one of few school professionals who is familiar with the content of curriculum documents and state standards across all grade levels and content areas. The school library is where curriculum content is resourced to facilitate inquiry learning.

Staffing in the school library is also seen through the lens of instruction. The certified school librarian is viewed as a teacher who guides students through the process of using information as the raw material for building knowledge. The primary work of the school librarian is to provide help through small and large group instruction, individual transactions, tutoring, differentiated teaching, and advisory services. The school librarian is also a co-teacher, working with teachers to design, implement, and evaluate challenging units of inquiry for students.

School Libraries and Professional Development

... teaching the teachers ... has really been beyond books and research. The tools that school librarians have made available to teachers have made me a better teacher and have helped me to create more meaningful and efficient ways to assess the kids as well as engage them... it has made my classroom so much more diverse in terms of teaching modalities as well as ways that students can demonstrate that they understand the content. (Special Education Teacher. Todd, Gordon and Lu, 2011, p. 141)

The school librarian nurtures a collaborative school culture. Teachers receive just-enough-just-in-time help as part of inquiry and problem-based instruction. The single most important pedagogy the school librarian contributes to a school's instructional agenda is Guided Inquiry and the Information Search Process (ISP), a staged model of cognitive, emotional, and behavioral changes in information users (Kuhlthau, 1983). Teachers learn how to use the ISP through their collaborations with school librarians who model the process and the application of interventions that help students become good information processors and users. School librarians provide training in inquiry and research methods, and resource-based learning. They also model authentic teaching, including formative assessment methods (Gordon, 2009) that help learners to become their own best critics. In turn, classroom teachers offer content knowledge, content-related teaching methods, and knowledge of their students to the collaboration. The school librarian is viewed as a co-teacher and a teacher of teachers, as well as a teacher of students.

Within the context of inquiry-based learning and through formal professional development the school librarian helps teachers expand their repertoire of teaching approaches. As an information specialist s/he provides training in navigating information systems, information processing, electronic searching, information ethics and legal use. As a trained expert in reference materials and services, as well as the literature for children and young adults s/he provides literacy support.. The school library is a laboratory for teachers to update their technological skills, learn new applications, software, interactive tools, and social media to motivate and engage their students. The school librarian helps teachers to integrate new methods with their teaching that

enable their students to use information to create new knowledge and express it through content creation in print, media, and digital formats.

School librarians are trained to be accountable for their instructional methods. They have a tradition in evidence-based practice (Todd, 2001) that encourages gathering local evidence, reflecting on the evidence, and revising their practice based on the evidence. They are skilled in strategic planning, program evaluation, and action research (Gordon, 2006) as tools of evidence-based practice and are prepared to give feedback about the effectiveness of instruction and continuous improvement of their programs.

The Role of the School Librarian in Improving Reading Comprehension

The [school library] has become a centralized focus for literacy development. The students see that [through] reading they are learning to read [better] and reading to learn... (Principal. Todd, Gordon and Lu, 2011, p. 115)

One of the important things that happens in the school library is when children come in on a regular basis is the guided selection of resources. [The school librarian] walks around with students and helps them pick out books so they can find a just right book - a book of high interest to them. ... That guided selection is very important (Todd, Gordon and Lu, 2011, p. 120)

School libraries are staffed with professionals who are adept at matching reader to text. The expertise of the school librarians is delivered at the point of need when students are looking for the “just right book.” They have a broad knowledge of selection tools and review sources that lead them to authoritative, age-appropriate, high interest books and media. Trained in the selection of reading materials for children and young adults, school librarians have first-hand knowledge of the most popular literature. They provide alternative media such as magazines, newspapers, and graphic novels that are popular with struggling readers, and digital media such as manga and fan fiction. The school library, as one principal noted, “... is like a candy store” (Todd, Gordon and Lu, 2011) where students can browse, sample, and enjoy a rich selection of materials as they learn to self-select and develop their personal reading interests. The school library provides a balance between lexile-driven access to curriculum-driven reading and free choice reading that is foundational to independent free voluntary reading (Krashen, 1995; 2004). The school librarian creates a culture of reading through literature displays, book talks, book clubs, author visits, book fairs, reading incentive programs, sustained silent reading, personal readers’ advisory, read-alouds, and reading marathons to encourage positive reading attitudes and to help students discover reading preferences and develop self-efficacy. The role of school libraries in summer reading confronts the effects of reading loss in grade level equivalency during summer months (Cooper, 2003), especially for English Language Learners, Special Education students, and socio-economically disadvantaged youth. Some libraries are bringing their summer reading online, opening their libraries in the summer, working with public libraries to sustain interest in reading during the summers, and establishing virtual contact with struggling students.

There is a strong body of research that demonstrates the importance of supporting free voluntary reading that takes account of variables such as readers’ dispositions and interests (Gordon, 2011; Gordon and Lu, 2008; Shinn, 1998; Hunt, 1997), effects of free choice (Vieira and Grantham,

2011; Lu and Gordon, 2008); Lu and Gordon, 2007; Johnson and Blair, 2003; Schraw, Flowerday, and Reisetter, 1998) and the role of self-efficacy (McCabe and Margolis, 2001; Zimmerman, 2000; Schunk and Zimmerman, 1997) in reading improvement. School librarians are aware of the relationship of these variables to reading motivation and engagement (Marinak and Gambrell, 2008; Flowerday, Schraw and Stevens, 2004; Gambrell, 2001; Wigfield, 1997) and the breadth, depth, diversity, and amount of reading (Wang and Guthrie, 2004; Wigfield and Guthrie, 1997). Free voluntary reading is important because research shows that the more people read, the better they read (Krashen, 2004).

The role of the school librarian in improving comprehension has expanded from support for recreational reading to providing a rich collection of informational text to support reading to learn and to research. They have been trained in guidelines, policies and legalities, including copyright and fair use, for the selection and use of appropriate informational reading. They know how to access interlibrary loan networks and free Internet sources such as the International Children's Digital Library. They know they can raise students' awareness of their comprehension and teach them how to apply strategic reading to fix comprehension when it breaks down (Goudvis and Harvey, 2007; McGregor, 2007). These strategies align nicely with the ISP stages, so support for comprehension can be built into Guided Inquiry as students activate prior knowledge, question the author, and interact with text using post-its and double entry journals, for example. Reading comprehension strategies can be applied to digital reading of informational, as well as literary text. School librarians support teachers to use these methods through dedicated workshops or collaborative team work. They also make reading materials accessible to students by stocking classrooms with circulating collections from library shelves.

The Role of the School Librarian in Information Research Skills and Critical Reading

[School librarians] incorporate a lot of reflection in the inquiry process through the Information Search Process. We incorporate things [students] may not often see the value of... but once they go back and look at it later through blogs or whatever system it is, they see how they've grown and that's such a rich experience. They can learn to be reflective learners and not just passive takers of information. (School Librarian. Todd, Gordon and Lu, 2011, p. 79)

We teach a research class where students do independent research to develop scientific proposals. They access a series of databases to do a scientific literature review and proceed to create a protocol which is going to lead them into investigative research... As a result of having access to databases they learn how to use [them], how to select full-text articles, and how to put in for library reserves and interlibrary loan... They have true research skills-being able not only to conduct scientific research, but being able to access other people's scientific research is extremely important as a scientist...). (School Librarian. Todd, Gordon and Lu, 2011, p. 85)

New learning standards for the 21st century learners are designed, promoted, and supported by the American Association of School Librarians (2007). These are the first information standards to cross the boundary between information seeking and fact-finding to address information skills as reading and thinking skills (AASL, 2007), including the cognitive processes of Bloom's revised taxonomy (Krathwohl, 2002). School libraries are equipped with the resources and

expertise to teach information processes and using information in the context of a learning task that requires sophisticated problem solving through critical thinking.

The school library as a Learning Commons champions information research skills in the form of Guided Inquiry (Kuhlthau, Maniotes & Caspari, 2007) whereby teams of school librarians and classroom teachers collaborate in the design, implementation, evaluation, and revision of units of inquiry. They build interventions into instruction to help students through information processes, critical reading, and critical thinking inherent in doing original research. The Information Search Process (ISP) (Kuhlthau, 1983) is the primary tool, validated by longitudinal research (Kuhlthau, 2004; Kuhlthau, 1988; Kuhlthau, 1989; Kuhlthau, Turock, George and Belvin, 1990;) that school librarians use to guide students beyond acquiring factual and procedural knowledge to formulating conceptual and metacognitive knowledge. Because the ISP model is research-based, it is predictive. School librarians can anticipate the stages of information processing, described in cognitive, affective, and behavioral dimensions, and provide interventions that will help students through each stage: Task Initiation, Topic Selection, Focus Formulation, Information Collection, and Presentation (Kuhlthau, 1983). For example, school librarians use visuals for Task Initiation to build background knowledge, graphic organizers or blogging for information collection, and Web 2.0 tools for content creation and presentation of the learning outcome (or project), that is a representation of what students have learned.

Critical reading is promoted by Guided Inquiry as students confront various perspectives and points of view in their reading. The learning task is designed to promote selection, interpretation, and of the found information. Students are challenged to engage in the highest form of thinking as they take a position, build or refute an argument, solve a problem, or come to a conclusion in order to discover something new.. As students make the journey from information to knowledge researchers and practitioners can chart and measure the changes in that knowledge of a curricular topic (Todd, 2006) using the Student Learning Impact Measure (SLIM). Students collect their information and it is analyzed to determine amount and types of knowledge that evolve during the information search process.

The Role of the School Librarian in Digital Literacy

I think there's some assumption that because we're in the 21st century people understand [information searching], but do they know how to teach that, to impart this to kids? The assumption that kids know because they're digital natives is one you can't make.
(Supervisor of Instruction. Todd, Gordon and Lu, 2011, p. 76)

Basically, digital literacy is not an add-on here. It's infused in instruction through the school library where students can access each content area of the school curriculum ... [Digital literacy] is not a standalone; It's cohesive and fluent, and pretty well-received by students and faculty. (Principal. Todd, Gordon and Lu, 2011, p. 111)

The school library as a center for digital literacy was a strong finding in the CiSSL study of twelve school libraries (Todd, Gordon and Lu, 2011). Educators identified digital citizenship, or "... the access, ethical use and production of digital information, and using the digital environment to communicate [and] share knowledge..." (Todd, Gordon and Lu, 2011, p. 105)

School librarians teach digital citizenship through information ethics, internet safety, legal and responsible use of intellectual property, privacy and confidentiality, and intellectual freedom and censorship.

Teachers debunked the myth of digital natives, acknowledging that instruction is needed: "... I think we need someone like [the librarian] to show them how to use things in an academic way and in a productive way, eventually in the way they're going to use them in the workforce." (Todd, Gordon and Lu, 2011, p. 106) A science teacher noted that the school librarian models finding relevant information; principals observed that the school librarians help students evaluate information. Teachers noted that in digital environments information is unmediated and that students need instruction in discerning quality information. They acknowledged that digital literacy skills are life skills that prepare students for college and career. According to a principal, digital literacy is "... central and impacts everybody." (Todd, Gordon and Lu, 2011, p. 112)

Students are engaged in an integrated model of literacy (reading, writing, speaking, and listening) in the school library as they create digital content and objects. School libraries bring media formats together and use them to develop transliteracy, or the ability to use information across diverse media formats. Visual, media, technological, and digital literacies cannot be taught in the absence of diverse resources, technological delivery systems for accessing information, and content creation tools through Web 2.0 and social networking.

The Role of the School Librarian in Cultural Literacy

Cultural literacy is promoted in the school library that provides a culturally diverse print collection as well as digital tools to communicate globally and experience other cultures virtually. Perhaps the best way to demonstrate cultural literacy as a learning outcome in the school library is through the eyes of teachers who have used school library resources and expertise in their teaching.

One of the seniors this year wanted to contact other countries to develop an international cookbook. That comes from the research and the interest that's developed. The baseline is established and [students] know how to use the technology. [Students] have come to me and they want to make it a part of their history program. They want to study the foods of different areas on a global basis... We've made this arrangement where we can hook up with another school in central Siberia. It was amazing, but again it's all kids taking it to the next step, and it has come from the use of the [school library] and encouraging them to think and work and be successful – to step outside the box. (Social Studies Teacher. Todd, Gordon and Lu, 2011, p.81-2)

Another teacher describes how he uses the school library to teach current events around the world.

[There is] discussion of what's happening in the world on a global scale compared to what we've done in a small town in New Jersey. [We take] that idea and extrapolating it to what we've done on the Internet: Learning what is poor and quality information on the web; What we've done in discussion; What we've done by looking at the smart board.

We do current events every week, integrating that information into our discussions.
(Social Studies Teacher. Todd, Gordon and Lu, 2011, p. 111)

The school library brings resources and technology together to create a synergy between cultural and digital literacy. Students join a participatory culture in a globally networked world as they practice and develop information, communication, and technology skills that prepare them to live and work in culturally diverse environments.

V. Conclusion

The Common Core Standards offer challenges that capture a new definition of what constitutes an adequate 21st century education. They place literacy in the context of information skills that enable learners to construct knowledge through critical reading. The standards focus on deep learning that happens when learners apply their knowledge to solve problems through inquiry. These elements rest on the high value placed on evidence and the importance of critical thinking. School librarians have a long tradition in teaching and supporting these competencies, as well as a strong research tradition that promotes pedagogical innovations relevant to the digital age. Their experience and expertise offer cost-effective and equitable strategies and solutions that meet the challenge posed by the Common Core Standards to prepare youth for living and working in the knowledge society of the digital age.

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