The Importance of School Library Programs for Increased Academic Achievement and Sustainable Education in the United States

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Within the discipline of library science, over 20 research studies have been done in the United States attesting to how high-quality school library programs contribute to improved academic achievement. On the other hand, in the fields of education, school counseling, administration, school leadership and so on, there is a dearth of scholarship and recognition of the positive impact librarians and library media programs have on student success. This conceptual article first presents an overview of the empirical research on school library programs and the positive impact they have on the academic achievement of students in the United States. Second, the argument is made that if education is to remain sustainable, it is essential that collaborative relationships are developed between school librarians and other personnel within school buildings.

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The concept of “sustainability” appears in the current academic discourse of many disciplines. Sociologist Joshua Yates made the case in his article “Abundance on Trial: The Cultural Significance of ‘Sustainability’” that the word sustainability has become a “master term” (Yates, 2012, p. 15). He asserted that:

thousands of organizations across the planet [are] dedicated to the cause of sustainability in one realm or another. The range of advocacy and application is remarkable, including everything from sustainable economic development to sustainable architectural design and city planning, fashion and apparel, energy, farming, education, healthcare, and so on. (Yates, 2012, p. 9)

Etymologically, “sustainability” first came into use in 1953 when the term was used in the journal Land Economics (“Sustainability,” n.d.) to refer to resource development being sustainable at a certain rate or level over a long period of time. As use of the term expanded beyond concerns about resources, it began to be employed by those working in the field of environmental conservation. In 1980, for example, the Journal of the Royal Society of Arts first used the word to refer to ecosystems (“Sustainability,” n.d.).

But how does this concept apply to education? In the scholarship on North American Kindergarten to Grade 12 education, finding a definition of “sustainable education” is surprisingly difficult. For the purpose of this article, when attempting to develop a description of sustainability for the field of education, it is helpful to borrow a definition from a related area of scholarship, which refers to education indirectly. In a discussion of corporate social responsibility, the European Commission defined “sustainable education” as a program of study that “contributes effectively to a sustainable development of society … where students … are trained in skills, methods and techniques
supporting their work as (future) professionals” (CSR Europe, 2003, p. 20). Given that definition, I argue in this article that, to sustain U.S. education to a level where students are academically successful and thus able to become independent functioning future college students, effective school library programs (SLPs) are essential. Further, SLPs are needed to provide the necessary training in skills, methods, and techniques of information literacy (finding, evaluating, and using information) to support their future work. By highlighting some of the library science research regarding the contribution SLPs make to the academic achievement of students in the United States, this article points to the significance of SLPs in fulfilling the mandate outlined in the previous definition.

The Crisis

Before exploring the literature, it is necessary for readers to understand the crisis regarding library programs in K–12 schools in the United States. School districts are facing a dilemma in these tight economic times. Since the downturn of the economy in 2009, school budgets have been, and continue to be, cut in districts all over the country. This lamentable situation is resulting in teacher layoffs and increased class sizes, an ordeal that is untenable for education to continue to be sustainable.

In addition to classroom teacher cutbacks, other school-based programs are being reduced or cut, including funding for school libraries. A basic Internet search for information on cuts to school library programs returns numerous recent articles decrying the decreases to library programs in school districts. On May 20, 2012, for example, The Blade reported that “local districts cut librarians to help save costs” (Feehan & McKinnon, 2012). A May 3, 2012 article in The Washington Post discusses the irony of the District of Columbia cutting librarians despite their strong focus on literacy (Strauss, 2012). A May 31, 2011 article in the Education section of The Huffington Post outlines librarian layoffs and reassignments all over the country (Resmovits, 2011). A
June 24, 2011 article in *The New York Times* discusses the difficult choices schools in Pennsylvania and New York face in tough economic times, which means the cutting of librarians (Santos, 2011).

What is the impact of these cuts? Are districts being short-sighted? Catchpole (2012), in an article about teacher librarian cuts in Washington State, asserted that there are “profound consequences for an individual, or even society at large” (para. 10) if teacher librarians are not a part of the educational process. Is there another model of education that would continue to include the library — a vital resource for supporting sustainable education?

*What does a “quality library program” look like?* Before delving into a review of the literature on SLPs, a brief discussion of what is meant by the phrase “quality library program” is warranted. On July 3, 2012, the American Library Association issued a Resolution asserting the critical nature of school libraries and librarians for educational success. The preamble to the Resolution provides an outline of key aspects of a quality SLP, and thus a working definition to keep in mind. The Preamble states that a “strong school library program” is one that (American Library Association, 2012):

- Is led by a credentialed librarian;
- Has increased hours of access for both individual student visits and group visits by classes;
- Has large collections of quality print and electronic resources with access at school and from home;
- Has up-to-date technology with connectivity to databases and automated collections;
- Has instruction implemented in collaboration with teachers that is integrated with classroom curriculum and allows students to learn and practice such 21st century skills as problem-solving, critical thinking, and communication of ideas and information;
- Has increased student usage of school library services;
- Has leadership activities by the librarian in providing professional
development for teachers, serving on key committees, and meeting regularly with the principals.

In order to fulfill these qualifications, SLPs should be fully funded with a certified librarian who collaborates with all professionals in their building. Further, robust curriculum-focused collections (print and non-print), books for pleasure reading, and up-to-date technology infrastructure are required. Without this sort of library program fully integrated into the life of a school, sustainable education will be difficult to achieve, because students will not obtain the necessary training in skills, methods, and techniques of information literacy, which contribute to their success in school and beyond.

**Review of Research Literature**

Over the last two decades, a number of studies have been published detailing a body of research attesting to the fact that quality SLPs make a measurable difference in the success of students (Scholastic Research & Results, 2008). In 1989, Keith Curry Lance, a researcher associated with the Colorado Department of Education, undertook one of the first statewide studies to determine the impact of SLPs on student achievement. Using quantitative research methods involving correlational, factor analysis and multiple regression, the results of the state-commissioned study indicated that there was a “positive relationship between a good, strong school library program and student achievement” (Kaplan, 2006, p. 23). Lance, Welborn, and Hamilton-Pennell (1992) examined several aspects of SLPs — staffing levels, library expenditure per student, information literacy instruction, available resources, and partnerships with other professionals in the building. Ruling out the demographic and economic factors of schools as well as the teacher-pupil ratio that might explain away the link between SLPs and academic success, they found that quality SLPs lead to higher academic achievers.

Since the first study, dubbed “the Colorado study,” Lance and colleagues’ research has been replicated in 22 states and one Canadian
province. While the overarching message of these state (and provincially) funded studies is the connection between academic achievement and SLPs, there is variety in the focus of this body of research. Some of the research examines how in-service training for teachers by librarians tends to contribute to higher academic achievement. Certain studies examine the efficacy of collection development, which provides students access to quality reading material. Other studies emphasize the connection between increasing literacy rates and SLPs. Despite slight variances in the focus of the research, the studies report on the positive correlation between library programs and student achievement in North America. What follows is a look at three key aspects of library programs — staffing, collections, and collaboration — and how these features of quality SLPs have had an impact on student learning.

**Staffing**

Adequate staffing of an SLP is necessary for developing a strong library program. Besides employing a certified librarian, hiring library support staff frees up the librarian to devote time to teaching students about information literacy, developing the collection, program administration, and collaboration with classroom teachers. A number of the studies investigated the extent to which quality library staffing had an impact on a school’s test scores (Achterman, 2008; Baxter & Smalley, 2004; Farmer, 2006; Lance, Rodney, & Hamilton-Pennell, 2000b; Lance, Rodney, & Russell, 2007; Lance, Welborn, et al., 1992; Queen’s University & People for Education, 2006; Rodney, Lance, & Hamilton-Pennell, 2002; Todd, 2005). Researchers found that staffing the library with a certified librarian and library support staff was an essential component to an effective SLP. Having adequate staffing afforded the librarian the opportunity to build robust collections, encourage reading, and teach critical thinking through information literacy instruction.

Other studies looked closely at the connection between adequate staffing and reading scores. For example, the 2007–2009 Colorado study provided evidence that when elementary schools employ a
certified full-time librarian, “[m]ore students earned proficient or advanced reading scores” on the Colorado Student Assessment Program test (Francis, Lance, & Lietzau, 2010, p. ii). With a full-time librarian, it is more likely that students will have the opportunity to visit the library on a regular basis where a librarian can provide readers’ advisory (i.e., suggesting texts to students for leisure reading, as well as supplementary texts to support academic understanding of subjects). Exposure to a variety of texts, commencing from a young age, is vitally important in the development of reading comprehension.

In 2002, the Iowa Area Education Agency contracted with Rodney, Lance, and Hamilton-Pennell to conduct a study of library program development. They found that Iowa reading test scores, particularly at the elementary level, rose in schools that had increases in:

- weekly LMS [library media specialist] staff hours per 100 students,
- total weekly LM [library media] staff hours per 100 students (Rodney et al., 2002, p. viii).

When qualified library staff members were present, students had access to quality print and electronic reading materials to support their studies and pleasure reading activities (Rodney et al., 2002).

Several studies showed that more library staff resulted in more information literacy instruction being offered to students. Increased staffing allows librarians time to teach students how to think critically about identifying, accessing, evaluating, and using information. The increase in information literacy instruction translated into higher test scores (Lance, Hamilton-Pennell, & Rodney, 2000; Lance, Rodney, & Hamilton-Pennell, 2000a; Lance, Rodney, & Russell, 2007; Smith, 2001).

In 2007–2008, researchers at Syracuse University’s School of Information Studies undertook a three-phase qualitative and quantitative research study that examined the impact school libraries had on a number of issues, one of which was student achievement (Small, Snyder, & Parker, 2009). Phase one and two of the study specifically focused on student achievement as a result of staffing. Building on studies by
Lance and colleagues, they found that there was a “positive relationship between school libraries and student achievement” (Small et al., 2009, Discussion section, para. 1). Also, their research showed that students in elementary schools with a certified librarian tended to have higher scores in English and Language Arts. A certified librarian understands the need for, and has time to focus on teaching information literacy skills, which encourages critical thinking skills in students.

While these studies attest to the connection between library staffing and academic achievement, they do not speak to how a fully staffed library with certified professionals help students. Todd and Kuhlthau’s (2005) mixed methods study in Ohio reported that 13,000 students say the library helped them in numerous ways. Some of what students reported was that the library helped them: to understand the steps for finding and evaluating information; to work out the main ideas in the information they found; and to help them use technology to produce a written project — all skills, methods, and techniques needed to ensure success in their academics and future work.

**Collections**

One might surmise that exposure to reading materials (print or electronic) from an early age would correspond to becoming a proficient reader, as measured by standardized tests. A study by Mol and Bus (2011), on the results of a meta-analysis of research examining the impact exposure to print (in school and outside of school) has on reading proficiency from infancy to adulthood, supported this surmise. After an exhaustive examination of the relevant research, they concluded that “print exposure is considered to be a driving force in shaping literacy” (Mol & Bus, 2011, p. 285). More importantly, spending leisure time reading is essential for low-ability readers. Additionally, Neuman and Celano (2001), examining access to print resources in low-income and middle-income communities, suggested that low-income communities with a lack of quality school library resources (including collections and certified staff) has a negative impact on academic achievement.
Stephen Krashen, Professor Emeritus at the University of Southern California and 2005 inductee in the International Reading Association’s Reading Hall of Fame, has written numerous books on language acquisition and reading. Many of his books pointed to the research outlined in this article and strongly advocated for the importance of school libraries for academic success. In a recently published book titled *Free Voluntary Reading*, Krashen (2011) said that “[a]ccess to books is as strong a factor in school success …. This holds for both school libraries … and books in the home” (p. 7). Referencing yet more research studies, Krashen pointed out that “more access to school libraries of at least 500 books was associated with higher reading scores for 10-year-olds in 40 countries, tested in their own language” (p. 29).

Given the research indicating the fundamental need for students to have access to a plethora of quality reading materials, collection development becomes an important focus for SLPs. In their 2009 report to the U.S. Department of Education titled “Second Evaluation of the Improving Literacy Through School Libraries Program,” Michie and Chaney (2009) asserted that “[o]n average, each additional book per student that libraries obtained was associated with an increase of 0.44 percentage points in student test scores” (p. xix). Indeed, school libraries with quality collections of books that are focused not only on curriculum support, but are also geared to the reading interests of students, contribute to academic success.

Returning to an examination of the Colorado studies, the second study indicated that as the number of print volumes per student increased, reading test scores, as measured by the Colorado State Assessment Program, were higher (Lance, Rodney, & Hamilton-Pennell, 2000a). The third Colorado study showed that when elementary libraries were better funded and able to purchase current periodicals and videos, more students scored “proficient” and “advanced” in reading scores (Francis et al., 2010).

In phase one of a qualitative study in New Jersey, researchers found that SLPs with a strong collection of resources, such as databases and current periodicals, help “students meet core curriculum content
standards” (Todd, Gordon, & Lu, 2010, p. 11). In a Texas study, student scores on the Texas Assessment of Academic Skills tended to be higher when expenditures in library programs were focused on purchasing more volumes per students and having more computers per students (Smith, 2001).

Building on studies by Lance and colleagues, Todd and Kuhlthau (2005) took a slightly different tack by researching students’ perspectives on the efficacy of libraries. Their state library-funded study, titled “Student Learning Through Ohio School Libraries,” examined how thirty-nine effective school libraries helped over 13,000 students in grades 3–12. Because of strong collections, students were able to report that the library helped in a number of ways. Some examples of what students reported are: finding stories they like, reading more, helping them get better at reading, helping them find information even when not at school, and helping them find different sources of information (books, magazines, Websites, videos, etc.) for their topics.

In a study of 60 southern California schools, researchers found that “the measure that correlated most closely with library program principles was standardized reading scores” (Farmer, 2006, p. 28). Librarians who have had classes on collection development and children’s literature during their graduate studies are trained to build collections of high-quality reading material. Consistently, the studies showed a very strong correlation between the collections of quality library programs and increased reading scores.

**Collaboration**

One of the most important aspects for sustainable education is a quality SLP where collaborative effort between librarians and classroom teachers are paramount. What does effective collaboration look like? In her article titled “Teachers’ Perceptions of Teacher and Librarian Collaboration,” Montiel-Overall (2009) offered us a view of what collaboration should look like between librarians and classroom teachers. She posited that collaborative endeavors need to be focused on the
integration of library instruction and subject content. Having been trained to teach during their graduate studies in Library Science, school librarians are well positioned to come alongside classroom teachers in partnering to teach students how to think critically when accessing, evaluating, and using information for their school work and beyond.

One of the stated goals of the American Association of School Librarians (a division of the American Library Association) is that school librarians will “participate as active partners in the teaching/learning process” (American Association of School Librarians, 2013). In other words, school librarians have a mandate to collaborate with classroom teachers. Further claims are made by Friend and Cook (2010), in their book titled Interactions: Collaboration Skills for School Professionals, who asserted that to prepare students adequately for the 21st century, collaborative relationships are essential for properly educating students, that is that school libraries working closely with teachers help to sustain quality education.

A particularly interesting focus of some of the studies was the positive correlation between collaborative planning and student scores. Several research studies support the fact that when librarians work hard to build effective collaborative relationships with all professionals in the building, and in particular, with classroom teachers, academic achievement rises. A 2000 Alaska study showed that:

One of the most critical activities of library media staff is cooperative planning with teachers. Without such collaboration, the effectiveness of the library media program and the school as a whole as a learning community is in jeopardy. It is little surprise, therefore, that even small amounts of time spent on this activity were found to make a difference in academic achievement. (Lance, Hamilton-Pennell, et al., 2000, p. 42)

In 2005, Farmer (2006) undertook an exploratory study in southern California. In her study involving 60 schools, she posited that, in order to optimize the correlation between library programs and student achievement, a key condition is librarians teaching collaboratively with classroom teachers.
In a study detailing multiple levels of collaboration, Montiel-Overall (2009) pointed out that “a relationship exists between students’ standardized test scores and well-developed library programs (e.g., sufficient budget, full-time librarian, library assistants, well-developed collections, and collaboration between teachers and librarians)” (p. 183). Further, Todd asserted that collaboration was not about the librarians merely teaching information literacy skills; it was “about the library media program helping classroom teachers to meet the state content standards” (cited in Kaplan, 2006, p. 37). Todd also pointed out that much of the research done by Lance and colleagues attests to the fact that collaboration was a leading contributor toward student success.

Conclusion: A Different Model for Sustainable Education

While more quantitative and qualitative research is needed detailing the correlation between SLPs and academic achievement, a strong message has emerged: high-quality SLPs have a significant impact on student achievement. For education to be sustainable in the future, schools should pay attention to the research, and to what students say about how the library helps them in school. In addition to encouraging reading habits, students in the Ohio study reported that libraries helped them do their “school work better” (Todd & Kuhlthau, 2005, p. 82), helped them “get better grades for their projects and assignments” (p. 82), and helped them “feel more confident about doing their school work” (p. 83). Overall, the Ohio Study demonstrated that students perceive that an effective library program is of vital importance for assisting them with their academics in school and outside of school — that is, a sustainable education.

Many of the new College and Career Readiness Anchor Standards, as well as the Common Core State Standards (Common Core State Standards Initiative, 2012) being implemented in the United States, call for students to be able to find, evaluate, and use information to support their academic work. This article has made the case that effective library
programs teach students these skills. Teacher preparation programs, generally, do not graduate teachers who know how to teach students these vital information literacy skills. Rather than cutting SLPs, educational systems should require SLPs to partner with classroom teachers to ensure student achievement. For education to be sustainable in the years to come, a different model that includes effective partnerships needs to be a primary focus of all school building professionals, including librarians, principals, classroom teachers, counselors, staff development teachers, and so on. Educators of all stripes can no longer afford to work in siloed environments.

To stimulate thinking on a different model of education that encompasses collaborative efforts or paradigms for cross-disciplinary education, consider these few examples:

- **Collaboration between school librarians and school counselors** — Several recently published articles in the Association for Educational Communications and Technology yearbooks extol the importance of collaboration between school counselors and school library media specialists (Dotson & Dotson-Blake, 2010; Dotson-Blake & Dotson, 2011; Jones, 2010). In their article about school counselors, Dotson-Blake and Dotson (2011) wrote about the usefulness of collaborative efforts between two key groups of educators. The authors presented a case for example, where counselors and librarians worked together to “address the mental health needs of students” (p. 202). The school counselor and librarian work closely to identify key student mental health issues. They then set about designing an academically based project where students will create annotated list of quality electronic resources addressing the various topics.

- **Collaboration between special educators and school librarians** — In a 2011 article in *Teaching Exceptional Children*, Canter, Voytecki, Zambone, and Jones proclaimed the school librarian as a “forgotten partner” (p. 14). They encouraged special educators to reach out to librarians when collaborating. They also asserted that the research
Cynthia Strong consistently shows that collaboration between school librarians and general educators contributed to increases in the achievement of special education students. Citing much of the research noted in this article, they encouraged special educators and librarians to seek each other out for collaborative planning. Further, their article provided concrete examples of specific action steps for collaborative efforts between educators from these two professions.

- Collaboration between a school librarian and multiple building professionals — in a 2007 article for the online edition of *Knowledge Quest*, I shared my personal experience of collaborating with myriad educators in the high school I worked in as a media specialist (librarian) in Maryland. Charged by the principal to develop a comprehensive literacy plan for the school, I assembled teachers from the following departments to serve on the Literacy Project Team: English, foreign languages, reading, ESOL, special education, literacy, and staff development (Strong, 2007). The resulting Literacy Plan became a guiding document used by the staff development teacher and literacy coach for writing a year-long staff development plan focusing best practices in vocabulary instruction.

Though these examples are anecdotal, they nonetheless provide useful ideas on how school libraries may assist students by involving the cooperative efforts of professional educators. Further research, replicating the Todd and Kuhlthau’s (2005) Ohio study, is also needed. Additionally, empirical research is needed offering evidence of the impact of the collaborative efforts of school building personnel. These additional studies could show how the collaborative efforts of all school professionals are correlated to the academic achievement of students. With such studies in hand, we can mine the research for creative ways to make education sustainable.
References


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