School Librarians' Experiences with Evidence-Based Library and Information Practice

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Abstract

Evidence-based library and information practice (EBLIP) provides school librarians a systematic means of building, assessing, and revising a library program, thus demonstrating a school library program's worth to the larger school community. Through survey research collecting both qualitative and quantitative data, 111 public school librarians in Texas shared the extent to which they applied components of EBLIP to practice, the extent to which they shared EBLIP data and with whom, and the extent to which formal LIS education has supported their applications of EBLIP.

Findings indicate the large majority of respondents engaged in some form of EBLIP, typically referencing professional journals, standards, and guidelines; informally collecting evidence from stakeholders; and writing mission statements. Few respondents, however, engaged in the complete process. With the intent of gaining, increasing, or securing something, respondents were most likely to share goals and data with administrators and teachers than with other stakeholders. Despite so few respondents' engaging in the complete process, approximately half expressed the belief that their LIS programs contributed to their understanding of EBLIP.

Introduction

Ask any school librarian if school libraries positively affect student learning, and the answer will be a resounding, "Yes, of course!" The research supports these claims as well; studies have pointed to the contributions school librarians make to learning in general and to standardized test results specifically (e.g., Baxter and Smalley 2003; Dow, Lakin, and Court 2012; Lance, Wellborn, and Hamilton-Pennell 1992; Small, Snyder, and Parker 2009; Todd, Gordon, and Lu 2010, 2011; Todd and Kuhlthau 2005.

Yet, discussions in the popular press and library literature regarding the relevance of school libraries and school librarians (Herring 2001; Smith 2012) suggest that other key stakeholders are either not aware of information regarding the importance of school libraries and librarianship or do not see the value of the school library and/or librarian at the local levels. These recent reductions in school library funding and the elimination of certified library personnel (Kachel and Lance 2013; Kramer and Diekman 2010; Lance and Hofschire 2011) signal the need for individual school librarians to take action, to improve practice, and to make their contributions to student learning clear. To reverse stakeholders' regard of school libraries as flotsam, school librarians must deliver evidence to justify the school library as the educational helm.

Evidence-based library and information practice (EBLIP) provides a systematic and cyclical process for generating and sharing evidence with stakeholders. EBLIP is an avenue that enables school librarians to use multiple sources of evidence as measurement tools for evaluating the library program (Kramer and Diekman 2010; Lance and Hofschire 2011). Empirical evidence, campus and district data, and professional standards and guidelines serve as the foundations for program development. Librarians then implement the programs, collecting myriad forms of evidence to evaluate the school library programs' effectiveness, and modify the programs accordingly. They then share this evidence with stakeholder groups to demonstrate the integral part the school library programs play in successful student learning (Todd 2006).

Both the scholarly and professional literature promote EBLIP as an effective means of justifying the value of the school library program and positioning it, and the certified librarian, as essential to the educational development of students. This study explored school librarians' understanding and applications of EBLIP in their practice, as well as their exposure to EBLIP in their LIS master's degree programs. A random sample of school librarians across Texas provided both quantitative and qualitative data addressing the integration of EBLIP into school library practice.

Literature Review

Evidence-Based Library and Information Practice

EBLIP, sometimes called evidence-based librarianship (EBL), can be applied to all areas of librarianship. Within EBLIP, librarians gather and analyze existing evidence to steer programming and service decisions (Booth 2002). Jonathan D. Eldredge has defined evidence-based librarianship as "a process for integrating the best available scientifically-generated evidence into making important decisions. EBL seeks to combine the use of the best available research evidence with a pragmatic perspective developed from working experiences in librarianship. EBL actively supports increasing the proportion of more rigorous applied research studies so the results can be available for making informed decisions" (2006, 342). Data collected in the EBLIP process can be used to support claims of library contributions to the learning environment and student outcomes (Todd 2006).

Evidence-Based Library and Information Practice in the School Library Context

EBLIP incorporated into school libraries involves three aspects: *evidence for practice* in which actual practice is based upon empirical research; *evidence in practice*, which encompasses the professional expertise that practitioners call on day-to-day; and *evidence of practice*, which involves the measurement and evaluation of practice in terms of outcomes (Todd 2001). While *evidence of practice* places a higher premium on direct measures of student learning, it also

encompasses other indirect ways of knowing that "play a key role affecting change" (Todd 2007, 71).

Applying the EBLIP cycle to the K–12 context requires school librarians' intentional and strategic planning. Cyclically, a school librarian must identify needs of the school community, address the identified needs by applying relevant evidence from the research through programs and services, collect and analyze local data to evaluate these programs and services, and finally, communicate to all stakeholder groups the results of the evaluations as evidence of the library program's contributions to student learning and accomplishment of school goals (Meeks and Cahill 2011, 2013; Oakleaf 2011).

EBLIP in the school library context serves multiple functions. First, it offers a practical avenue for school librarians to improve programming and service. In reviewing the existing school library literature in search of research-tested strategies, school librarians will not only improve their existing practices, they will also add tools that will facilitate structured growth of their library programs. In the process of collecting and analyzing data to evaluate their overall school library programs, as well as specific services and programs, school librarians will generate evidence that their own library programs contribute to student outcomes. This evidence can subsequently be shared with all stakeholder groups (Todd 2006). Thus, EBLIP offers school librarians a means for publicizing library program contributions to student learning. This evidence serves to secure school librarians' positions while simultaneously positioning them as leaders within the education community (Ballard, March, and Sand 2009; DiScala and Subramaniam 2011; Gordon 2009; Martin 2011).

Promotion of EBLIP for School Librarians

Both school library leaders and school library researchers recognize the necessity of integrating EBLIP into school library practice. These leaders and researchers have promoted EBLIP in sundry venues. Both *School Libraries Worldwide* and *Evidence Based Library and Information Practice Journal* have published special issues featuring EBLIP in the school library context (Oberg 2006; Koufogiannakis 2009). Toward leadership development, in 2001 the *School Library Journal* Leadership Summit, an annual gathering of school library leaders, focused on the integration of EBLIP into school library practice (Todd 2008a). Finally, toward institutionalizing the practice, both the American Association of School Librarians' *Empowering Learners* (2009) and the National Board for Professional Teaching Standards' *Library Media Standards* (2012) endorse integration of EBLIP as a means for strengthening and advocating for school library programs.

Value of EBLIP for School Librarians

As articulated in *Empowering Learners: Guidelines for School Library Programs*, AASL (2009) identified and prioritized the five roles school librarians must address to empower library users: leader, instructional partner, information specialist, teacher, and program administrator. Though integration of EBLIP into regular practice technically falls under the program administrator role and, therefore, may seem less important than other practices and activities of a school librarian, it is through engagement in EBLIP that librarians can gather evidence to improve effectiveness in all of the other roles.

School library research points to the value of EBLIP in high-quality practice. Helen Greenwood, Claire Creaser, and Sally Maynard (2009) found the intentional evaluation of school library programs using local evidence to be one of the critical factors of successful primary school libraries. Carol A. Gordon explained, "When applied to instruction, evidence-based practice is a function of best practice: evidence-based practice elicits documentation that demonstrates how school libraries, which can be considered agents of educational reform not yet integrated with mainstream education, make a difference in teaching and learning" (2009, 23). To support practitioners' integration of EBLIP, Marjorie L. Pappas (2008) developed a Designing Learning for Evidence-Based Practice matrix to illustrate and facilitate the strategic planning of data collection within the design process of lesson planning, and Ruth V. Small and Jaime Snyder (2010) have made reliable and valid instruments available to school librarians for data gathering and analysis purposes.

Despite calls for action to integrate EBLIP into school library practice, there is little evidence to suggest that doing so positively impacts the effectiveness of the school library program or stakeholders' perceptions of the school library program. Few researchers have studied or documented the integration of EBLIP into school library practice. The study reported in this paper moves this line of inquiry forward by exploring practicing school librarians' experiences with EBLIP in formal library and information science (LIS) education, with the application of EBLIP into actual practice, and through the sharing of data and other forms of evidence collected through the EBLIP process.

This survey research study builds upon a previous case study conducted by the investigators; that study explored school library certification students' understandings of, experiences with, and intended implementations of EBLIP in the school library setting (Cahill and Richey 2012).

This study seeks to examine current school library practitioners' understanding and application of EBLIP, as well as their EBLIP exposure in their MLS programs. Specifically, this study addresses the following research questions:

- To what extent do school librarians apply components of EBLIP to practice?

- To what extent do school librarians share EBLIP data and with whom?

- To what extent has formal LIS education supported school librarians' applications of EBLIP?

Methods

Participants

Certified school librarians working in public schools in Texas and serving patrons in grades pre-kindergarten through twelfth grade were the target participant group. School librarians in the state of Texas are required to have both a master's degree in library science or a related field and school librarianship certification plus a minimum of two years of classroom teaching experience (Texas State Board for Educator Certification 2009). However, emergency certification and probationary certificates can be and are issued to individuals who do not meet all of the full certification requirements. Hence, some of the participants in this study were not fully certified.

A list of 5,006 public school librarians was obtained through a Public Information Request from the Texas Education Agency (TEA); from this list the researchers randomly selected six hundred

potential participants. A total of 111 individuals responded, resulting in a confidence level of 95 percent and a confidence interval of 9.20. As illustrated in table 1, study participants included those serving all levels of students, but elementary-level librarians had greater representation than any other category. About one-tenth of the study participants labeled their campuses as "other," such as serving grades 6–12, grades Pre-K–12, serving multiple campuses, and serving as both the school district and public librarian. As shown in table 2, 80.2 percent (n=89) of respondents have a degree in LIS and/or were fully certified in school librarianship. Finally, as illustrated in table 3, the vast majority of study participants were experienced educators with 68.4 percent (n=76) having over five years of experience in school librarianship.

Table 1. Participants' school type.

Level	n (%)
Elementary school	50 (45.1)
Middle school	32 (28.8)
High school	16 (14.4)
Other or not disclosed	13 (11.7)

Table 2. Level of formal education and certification.

Level	n (%)
High school	1 (0.9)
Bachelor's degree (not certified)	1 (0.9)
Bachelor's degree (certified in at least one area)	9 (8.1)
Bachelor's degree (currently working toward MLS)	1 (0.9)
Master's degree in other area (without school library certification)	6 (5.4)
Master's degree in other area (with school library certification)	25 (22.5)
Master's degree in library and/or information science	51 (45.9)
Master's degree in library and/or information science AND another discipline	12 (10.8)
Doctorate in library and/or information science	1 (0.9)
Doctorate in another discipline	3 (2.7)
Not specified	1 (0.9)

Table 3. Years of service as a school librarian.

Years	n (%)	Cumulative n (%)
1–3	20 (18.0)	20 (18.0)
4–5	9 (8.1)	29 (26.1)
6–10	25 (22.5)	54 (48.6)
10–19	32 (28.8)	86 (77.5)
20+	19 (17.1)	105 (94.6)
No response	6 (5.4)	111 (100)

Data Collection

Survey Instrument

This study used a researcher-developed survey instrument (see Appendix A). The purpose of the survey was to gather demographic information about each respondent's school facility as well as

information about each librarian's formal education, level of certification, years of experience in education and librarianship, integration of EBLIP into practice, and exposure to EBLIP information in his or her library education program. The survey instrument included twenty-six items and consisted of yes/no, multiple choice, multiple selection, and open-ended questions generated from themes presented in our case study (Cahill and Richey 2012), in addition to themes presented in the LIS literature on EBLIP. The final item on the instrument requested that respondents describe a specific incident in which evidence-based practice was employed with positive results.

The researchers sent an e-mail to each potential participant (see Appendix B). The e-mail provided a brief description of the intended purpose of the study, an explanation stating that participation was voluntary and that anonymity would be maintained in the reporting of results, and a link to an online survey delivered through SurveyMonkey.

The online survey instrument included a statement indicating, again, that participation was voluntary, that participation in the study could be terminated at any time, and that responses were anonymous. Brief written directions for completing the survey were also provided. Participants then had the opportunity to respond to survey items; however, skip logic was used in designing the survey. Depending upon the response to certain items, the survey automatically skipped to the next relevant item. For example, item 10 on the instrument asks, "Does your library program have a mission statement?" Participants who responded "No" automatically skipped items 11 and 12, which were follow-up items related to the library mission statement.

All potential participants had three weeks to complete the survey, and all were sent one reminder e-mail one week after the initial e-mail was sent.

Data Analysis

Descriptive statistical analyses were conducted on structured response data. Additionally, binary logistic models were fitted to examine the effects of the independent variables on the dependent variables. An alpha level of .05 was used to determine significance for all statistical tests. The researchers used a constant comparative method (Glasser and Strauss 1967) to draw themes from the contents of unstructured response items. Finally, critical incident technique (Flanagan 1954) was applied to the final response item.

Results

Note: Findings are presented in terms of the research question and component of EBLIP (Todd 2001) addressed.

To What Extent Do School Librarians Apply Components of EBLIP to Practice?

Evidence for Practice

Collecting Evidence from Outside Sources

A large majority of the respondents, 83.8 percent (n=93) indicated they read professional school library journals (e.g., *Knowledge Quest*, *Library Media Connection*, *School Library Journal*,

School Library Monthly, etc.). Of those who read these types of publications, all but one (n=92) reported applying to actual practice the knowledge gained through reading. Approximately one-third of participants (n=38; 34.2 percent) reported reading scholarly journals such as *School Library Research* and *School Libraries Worldwide*, and again, of those who do, nearly all (n=36; 94.7 percent) apply knowledge gained.

According to the EBLIP cycle, standards and guidelines should serve as a foundation for library program development. Respondents indicated this to be true for themselves, as 54.9 percent (n=61) use AASL's *Standards for the 21st-Century Learner* (2007) when developing library program goals and/or objectives, and 63.0 percent (n=70) refer to *School Library Programs: Standards and Guidelines for Texas* (Texas State Board of Education, and Texas State Library and Archives Commission 2005) when developing library program goals and/or objectives. Although the Texas Education Agency has not yet adopted the Common Core State Standards (Common Core State Standards Initiative 2010), 44.1 percent of respondents (n=49) claimed they refer to the Common Core when developing library program goals and/or objectives.

Collecting Evidence from Inside Sources

Respondents also indicated that to steer practice they collect evidence from within their school communities. The most frequent method of collecting evidence to determine stakeholders' needs is informal solicitation, as stated by 87.4 percent of respondents (n=97), whereas 29.7 percent (n=33) of respondents formally survey at least one stakeholder group. Other means of determining stakeholders' needs include observing events and problems in the school and community (n=84, 75.6 percent), collecting and analyzing library-related data such as circulation statistics, student sign-in records, collaboration logs, etc. (n=82, 73.9 percent), and collecting and analyzing school- and/or classroom-level data such as standardized test scores, benchmark results, disciplinary referral logs, etc. (n=38, 34.2 percent).

Interestingly, respondents who had served in education for more than twenty years were 8.843 times more likely to select "I try to stay attuned to events and problems in the school and community" as a means of determining stakeholder needs compared to those who had served under twenty years.

Evidence in Practice

Mission Statement

The majority of respondents (n=86, 77.5 percent) stated that their libraries had a mission statement. Of those 86 respondents, 65.1 percent (n=56) reported they participated in the writing of the mission statement. Slightly less than half (n=42, 48.8 percent) reported their library program mission statement closely reflects the campus mission statement but is specific to the library program; 39.5 percent (n=34) reported their library program mission statement closely reflects the AASL mission statement but is specific to the campus, and only 6.9 percent (n=6) reported their library program mission statement does not closely reflect the campus mission statement nor the AASL mission statement.

Library Program Goals

Formal processes for developing library program goals were reported slightly more frequently than informal processes. Table 4 illustrates respondents' reported methods for writing formal library program goals. Informal goals based on day-to-day events were developed by 38.7

percent of respondents (n=43). Only one librarian (0.9 percent) reported having no library program goals.

Table 4. Method of writing formal library program goals.

Method	n (%)
Write formal goals based on a combination of library program needs and campus/district goals	38 (34.2)
Write formal goals based only upon library program needs	9 (8.1)
Write formal goals based only upon campus/district goals	9 (8.1)
Work with a school library advisory board to write formal library program goals based upon both library program needs and campus/district goals	3 (2.7)
Work with a school library advisory board to write formal goals based upon campus/district goals	2 (1.8)
Work with a school library advisory board to write formal program goals based upon library program needs	1 (0.9)
Total writing formal library goals	62 (55.8)

Long Range Planning

The majority of respondents (70.3 percent, n=78) reported that they do not develop a long-range plan related to library program goals, although they acknowledged working toward meeting program goals. Only 15.32 percent (n=17) indicated that a long-range plan was in place and aligned with goals.

To What Extent Do School Librarians Share EBLIP Data and with Whom?

Evidence of Practice

Sharing Library Program Goals

Respondents reported sharing library program goals with various stakeholders, and many reported sharing with more than one stakeholder group. Table 5 lists the stakeholder groups with whom respondents reported sharing information. Only 2.7 percent (n=3) stated they do not share library program goals with any stakeholder group.

Table 5. Stakeholder groups with whom school librarians share library program goals.

Group	n (%)
Administrator(s)	87 (78.3)
Teachers	80 (72.0)
Students	51 (45.9)
Parents	34 (30.6)
Community members	13 (11.7)

Collecting Evidence

The collection of evidence to assess the library program is an integral part of the EBLIP process. Respondents were asked to share types of evidence collected; the question was open-ended to ensure their responses were grounded in their behaviors as they perceived them. Sixty-one respondents (54.9 percent) reported collecting evidence in the form of quantitative or qualitative data to evaluate the extent to which they have met library program goals. Fifty-three respondents (47.7 percent) shared the types of evidence collected. Participants reported fourteen categories of evidence as listed in table 6.

Table 6. Types of evidence collected.

Category	Frequency
Circulation statistics	32
Student assessment and learning	17
Library usage	16
Surveys	14
Anecdotal	9
Programming	9
Collection analysis	5
Collaboration	3
Financial data	3
Formal evaluation	3
Requests	3
Communication	2
Professional development	2

Thirty-two of the respondents (60.45 percent) to this particular question reported collecting circulation data to assess the school library program. When compared to collection of other types of evidence, circulation data is most easily and quickly gathered; circulation data is readily collected through the use of reports generated by circulation systems. Those reporting the use of surveys did not describe specific details about the purpose of the surveys.

Sharing Data

As with library program goals, most participants reported sharing EBLIP data with various stakeholder groups. As illustrated in table 7, administrators are the stakeholder group with whom school librarians most frequently shared EBLIP data. Twelve (10.8 percent) study participants reported not sharing evidence with any stakeholder group to show the extent to which the librarians have met library program goals.

Table 7. Stakeholder groups with whom librarians share EBLIP data.

Stakeholder	n (%)
Administrator(s)	70 (63.1)
Teachers	42 (37.8)
Students	20 (18.0)
Parents	14 (12.6)
Community members	8 (7.1)

Sixty-six respondents (59.5 percent) indicated that they thought sharing data would achieve some type of positive result. The most frequent rationale provided was to secure support for the school library program. The second most frequently mentioned purpose was to provide information about the library program's role in addressing student learning. As one librarian stated, "I hope to convey that the library is an extension of the classroom and a place for learning and acquiring lifelong skills needed for success."

Though one respondent indicated sharing data for the purpose of facilitating planning, all other rationales for sharing data fell into one of two categories: for gaining or securing something, and for providing information about something. Results are further delineated in table 8.

Table 8. Librarians' rationales for sharing data with stakeholders.

Category	Example	Frequency
Gain, increase, or secure		
Support	"I hope to achieve value for the library program"	22
Funding	"helps justify needs for acquisition of materials"	11
Use of the library or participation in library programs	"To involve and spark interest in our entire community"	7
Feedback	"To receive additional input on ways to improve our library"	6
Total		46
Provide information		
Library role in student learning and achievement	"Document the integration of the library program with the curricular areas, document support of faculty and student needs"	14
Library importance and/or use	"To let everyone know that our library is used and valued by our staff, students and parents."	13
Library services and/or goals	"Demonstrate moving towards a goal and year to year progress"	11
Use of funding	"document success of funds spent"	1
Total		39
Planning	"planning of future library programs and hours"	1

Respondents who did not read professional and/or scholarly journals were less likely to share evidence with administrators (odds ratio of 0.128 and 0.284, respectively), and respondents who served at the high school level were less likely to share evidence as compared to those working at the elementary school level.

Respondents who did not read scholarly journals were less likely to share evidence with teachers (odds ratio of 0.235), as were respondents who did not have National Board for Professional Teaching Standards certification (odds ratio of 0.206). Again, respondents currently working at the high school level were less likely to share evidence with teachers compared to respondents working at the elementary level (odds ratio of 0.185).

One survey item asked respondents to describe a specific incident in which evidence-based practice was employed with positive results. Twenty-eight respondents (25.2 percent) shared examples of using EBLIP and achieving positive results. Types of evidence and/or data reported as shared with stakeholder groups are presented in table 9. Two quotations were used twice, as they illustrated multiple examples.

Table 9. Specific incident in which evidence-based practice was used with positive results.

Category	Evidence Used	Example	Frequency
Gain, increase, or secure			
Support	LIS literature	"To convince my principal to take me out of a rotation schedule based on library research that indicates a flexible schedule is more beneficial to the school as a whole."	1
Funding	Circulation statistics	"With a principal I used circulation statistics, stats on age of collection and other data to obtain significant funding over three years to update our holdings."	3
	Collection analysis	"I used our circulation statistics and age of collection statistics to keep from getting the library budget cut."	4
	Library usage	"Kept records of computer use to complete classwork and research outside of the formal class setting and was able to receive more computers to provide greater access."	1
	Surveys	"Several years back, over half of the students surveyed commented on the lack of air conditioning in the library (Southern Texas). I was able to get a new A.C. unit. Student surveys also complained about the lack of	1

		computers (I had 10), and this was increased to 24 the next year."	
	Formal evaluation	"I brought a chart with the Texas standards for collection depth and breadth to a meeting with the campus leadership team and showed how our collection compared. They gave me additional funds to increase the number and age sensitivity of science, math and biography titles."	2
Use of the library or participation in library programs	Library usage	"Kept records of computer use to complete classwork and research outside of the formal class setting and was able to receive more computers to provide greater access."	1
	Circulation statistics	"Circulation reports showed that science books, especially those dealing with planets, weren't frequently checked out. I prepared an exhibit with those books and circulation in that area increased again."	1
	Professional development	"Presenting a staff development session for teachers on usage of the online databases for research projects led to an increased use of those."	1
	Student assessment and learning	"To identify why students came to the library during their lunch and before and after school, I used sign-in sheets that recorded that our middle school boys were playing video games rather than doing something which advanced them intellectually. I was able to provide other options for the use of computers which was interesting to the students and satisfied my desire for more intellectual pursuits."	1
Total			16
Provide information			
Library role in student learning and achievement	Programming	"Last year we implemented a new system of rewarding student reading achievement. At the beginning of this	1

		year, the principal and I used a summary of 2011–12 and 2010–11 statistics to show increased reading achievement. The changes implemented last year were retained and refined."	
	Circulation statistics	Same as above	1
Library importance and/or use	Surveys	"I created a survey of the need for a parent checkout section in our library."	5
	Library usage	"I used sign-in sheets that recorded that our middle school boys were playing video games rather than doing something which advanced them intellectually."	1
	Formal evaluation	"I surveyed the teachers on a tech program we were offering to gauge interest. Then at the end of the program the teachers did an evaluation form which I turned in to my principal."	1
Library services and/or goals	Student assessment and learning	"Our science test scores were low for fifth graders. I used some of the objectives students scored low on, and we worked through them in library based skills."	2
	Circulation statistics	"I shared monthly with my principal library circulation data, as a result, the principal included library goals and expectations in the campus improvement plan for the new school year."	1
Use of funding	Surveys	"Surveying children about genres. Gives me a picture of what they want to read. Also tracking the number of books that circulate in fiction vs. nonfiction helps me to keep my book orders in line with need."	1
Total			13

Planning	Anecdotal	"When I assess, usually informally but formally a couple of times, I find out how much the students know. I try and use data on students' college readiness and technology skills to promote more planning regarding these goals, and trying to integrate some of my lessons into what the teachers are doing."	1

The types of evidence collected and the resulting positive outcomes aligned with the majority of the data presented in tables 6 and 8. Evidence not shared in the specific-incident question includes collaboration, financial data, requests, and communication. One additional category identified in table 6 but not shared by participants was use of LIS literature.

To What Extent Has Formal LIS Education Supported School Librarians' Application of EBLIP?

Fifty-five respondents (49.6 percent) indicated their library education program taught them about EBLIP; however, 54.1 percent (n=60) expressed the belief that their working understanding of EBLIP was sufficient for applying EBLIP into their practice.

Discussion

Using both quantitative and qualitative means, this study explored practicing school librarians' understanding and application of EBLIP and their EBLIP exposure in their MLS programs. The results from this study indicate the majority of respondents are implementing at least a portion of the EBLIP cycle into their practice, but few engage in the complete process.

Limitations

All participants in this study were employed in Texas public schools. Because Texas certification standards are somewhat more stringent than those in other states, it would stand to reason that practitioners should be more likely to implement EBLIP into practice as compared to school librarians in states with less-stringent certification requirements. Thus, the data may not be generalizable to school librarians beyond Texas.

Out of the 5,006 school librarians in Texas, 600 were contacted, and 111 chose to participate. These 111 respondents represent only 2.2 percent of the Texas school librarian population. A higher participation rate may have revealed additional insights.

The study focused on the components of EBLIP much more so than the concept of EBLIP as a whole. The invitation to participate e-mailed to potential participants did not explicitly define EBLIP but did explain how the study may contribute to the greater LIS community (see Appendix B). Providing respondents with a definition for EBLIP may have altered the results for the questions about library education programs teaching EBLIP, the respondents' understanding of EBLIP, and specific incidents of using EBLIP with positive results.

Finally, the participants self-reported, so the validity of the responses is dependent upon respondents' honesty and understanding of EBLIP (Mertens 2005).

Evidence of, in, and for Practice

Participants' responses suggest that a large majority use *evidence for practice*. Within this realm, they use professional journals, national and state standards, and association guidelines as foundations for building school library programs. Additionally, some collect data for the purpose of determining stakeholder needs, and nearly all engage in informal processes to determine stakeholder needs. Findings from this study pointing to the low use of formal research publications among practicing librarians correspond with previous reports (Todd 2007).

Implementation of *evidence in practice* varied substantially among participants in this study. Although the majority of respondents reported having mission statements, significantly fewer reported engaging in goal writing and long-range planning processes. The results suggest that school librarians tend to integrate the more pragmatic ways of knowing (Kvernbekk 2011) rather than research-based ways of knowing. The types of data and evidence reported to have been collected and shared tended to be informal. Of course informal evidence has value, and, if used wisely, this type of evidence can affect the library program positively. Anecdotal evidence, such as observations and patron comments, provides immediate feedback and can guide the school librarian in making necessary program modifications. Circulation statistics, collection age, and use of funding data provide quantifiable evidence easily and quickly collected and shared with stakeholders to illustrate patron use, strengths of the library program, and areas to target for improvement. These types of evidence, however, are insufficient for addressing the connection of the school library program to student learning.

While nearly two-thirds of the participants' responses indicate that they engaged in *evidence of practice*, these reported practices, again, tended not to focus on student learning. A mere 15 percent of participants indicated collecting data related to student assessment and/or learning. Yet, these are the very data that local school officials consider when making funding and personnel decisions. Hence, it is imperative that every school librarian collect and disseminate evidence related to the role of the school library program in affecting student learning and school outcomes. Findings from this study are consistent with previous research results and discussions of EBLIP. Implementation of the practice is challenging for school librarians (Ballard, March, and Sand 2009; Booth 2002; Kramer and Diekman 2010; Todd 2008a, 2008b), and school librarians have difficulty with evaluation (Robins and Antrim 2012).

Role of School Library Educators

School library leaders and educators of school librarians need to consider the support and development necessary for school librarians to integrate EBLIP into practice. While half of the respondents in this study reported having some exposure to EBLIP in their LIS programs, and slightly more indicated a working knowledge of EBLIP, it seems unlikely that the exposure could have been sufficient given the relatively recent origins of EBLIP in LIS (Eldredge 2000) and the years of experience of the study participants. Furthermore, a disconnect exists between participants' reported understanding of EBLIP and their putting specific components of the EBLIP cycle into practice.

Changes to the LIS curriculum seem to be a natural starting place for affecting change in practice. Ellen Crumley and Denise Koufogiannakis (2002) have identified library preparation programs as an integral piece in new librarians' implementation of EBLIP. The recently developed *American Library Association/American Association of School Librarians Standards for Initial Preparation of School Librarians* calls for school library educators to integrate EBLIP into the LIS curriculum for school librarians. This document outlines standards applicable to all master's level school library preparation programs that are "based on a critical piece of the overall knowledge base that new school librarians must have in order to be successful" (2010, 10). To fulfill the standards and corresponding rubrics, candidates (i.e., students enrolled in school library preparation programs) need to implement all aspects of EBLIP for their library programs to meet the "target" distinction. It is important, however, for LIS educators to further consider how best to meet this goal.

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Appendix A: Survey Instrument

1. Indicate the total number of years you have served in education as a teacher, librarian, and/or administrator.

2. Indicate the total number of years you have served in education as a certified school librarian.

3. Indicate the highest level of formal education/training you have earned:

   a. High school diploma

   b. Associate's degree

   c. Bachelor's degree (not currently certified to teach)

   d. Bachelor's degree and teacher certification in at least one area

   e. Bachelor's degree and currently working toward a Master's in library and/or information science

   f. Master's degree in discipline other than library and/or information science

   g. Master's degree in discipline other than library and/or information science WITH library certification

   h. Master's in library and/or information science

   i. Master's in library and/or information science AND another discipline

   j. Doctorate in library and information science

   k. Doctorate in another discipline

4. At which level do you currently serve?

   a. Elementary

   b. Middle

   c. High

   d. Other: please explain.

5. Do you have National Board for Professional Teaching Standards certification?

   a. No.

   b. Yes, as a classroom teacher.

   c. Yes, as a school librarian.

6. Do you read professional school library journals (e.g., *Knowledge Quest*, *Library Media Connection*, *School Library Journal*, *School Library Monthly*, etc.)?

7. If you answered "yes" to #6, do you apply knowledge you gained from professional journals to your practice?

8. Do you read scholarly school library journals (e.g., *School Library Research*, *School Libraries Worldwide*, etc.)?

9. If you answered "yes" to #8, do you apply knowledge you gained from scholarly journals to your practice?

10. Does your library program have a mission statement?

11. Did you write or help write the library program mission statement?

12. Select the statement that most closely reflects your library mission statement:

    a. My library program mission statement closely reflects the campus mission statement but is specific to the library program.

    b. My library program mission statement closely reflects the AASL mission statement but is specific to my campus.

    c. My library program mission statement does not closely reflect the campus mission statement nor the AASL mission statement.

13. Select all statements that reflect how you determine stakeholders' needs:

    a. I try to stay attuned to events and problems in the school and community.

    b. I informally solicit information from parents, teachers, students, administrators, and/or community members.

    c. I formally survey at least one of the stakeholder groups (parents, teachers, students, administrators, and/or community members).

    d. I collect and analyze library-related data such as circulation statistics, student sign-in records, collaboration logs, etc.

    e. I collect and analyze school- and/or classroom-level data such as standardized test scores, benchmark results, disciplinary referral logs, etc.

14. Select the statement that most closely reflects your library program goals:

    a. I do not have library program goals.

    b. My library program goals are informal and vary based on day-to-day events.

    c. I write formal library program goals based only upon library program needs.

    d. I write formal library program goals based only upon campus/district goals.

    e. I write formal library program goals based on both library program needs and campus/district goals.

    f. I work with a school library advisory board to write formal program goals based upon library program needs.

    g. I work with a school library advisory board to write formal goals based upon campus/district goals.

    h. I work with a school library advisory board to write formal library program goals based upon both library program needs and campus/district goals.

15. Select the statement that most closely reflects your long-range planning in relation to library program goals:

    a. I write a formal long-range plan and align all programs and services objectives with library program goals.

b. I do not write a formal long-range plan, but I keep library program goals in the back of my mind and ensure that the school library programs and services address those goals.

c. I do not write a formal long-range plan, but I think about my library program goals periodically and work toward accomplishing them.

16. Do you refer to the AASL *Standards for the 21st-Century Learner* when developing library program goals and/or objectives?

17. Do you refer to the State Board for Educator Certification's *School Library Programs: Standards and Guidelines for Texas* when developing library program goals and/or objectives?

18. Do you refer to the Common Core standards when developing library program goals and/or objectives?

19. With which stakeholder group(s) do you share library program goals? Select all that apply:

a. Administrator(s)

b. Teachers

c. Students

d. Parents

e. Community members

f. I do not share library program goals with any stakeholder group

20. Do you collect evidence/data to evaluate the extent to which you have met library program goals?

21. Please list any type(s) of evidence/data you collect.

22. With which stakeholder group(s) do you share evidence/data evaluating the extent to which you have met library program goals? Select all that apply:

a. Administrator(s)

b. Teachers

c. Students

d. Parents

e. Community members

f. I do not share evidence/data evaluating the extent to which I have met library program goals with any stakeholder group.

23. What do you hope to achieve by sharing data?

24. Did your library education program teach you about evidence-based library and information practice?

25. Did you gain an understanding of evidence-based library and information practice sufficient to support your practice?

26. Describe a specific incident in which you used evidence-based practice with positive
results.

Appendix B: E-Mail Sent to Potential Participants

Hello,

You are invited to participate in an online research study entitled "School Librarians' Experiences with Evidence-Based Library and Information Practice." The study is being conducted by Jennifer Richey, PhD, and Maria Cahill, PhD, at the School of Library and Information Studies at Texas Woman's University.

The purpose of this study is to explore practicing school librarians' understanding of, application of, and sharing of evidence-based information in their school library programs. Your participation may contribute to a better understanding of how school library certification programs can educate their Master's level students about evidence-based information, as well as help practicing school librarians advocate for their library programs, develop relationships with the school community, and promote K–12 student academic success.

Your participation in this study is voluntary. You can choose not to participate at any time without penalty. If you choose to participate, you will complete one online survey. The estimated time for completing the survey is approximately 5–15 minutes.

The survey opens today and will close on Monday, November 5. There is a potential risk of loss of confidentiality in all e-mail, downloading, and internet transactions. Here is the link to the survey: https://www.surveymonkey.com/s/KD97VGQ. We appreciate your participation.

If you have any questions, please call Jennifer Richey at (940) 898-2609 or Maria Cahill at (940) 898-2605 or send an e-mail to jrichey1@twu.edu or mcahill1@twu.edu.

Thank you,

Jennifer Richey, PhD

Maria Cahill, PhD

School of Library and Information Studies

Texas Woman's University

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