

Focus on Global Education:

Mixed Methods Approach to Understanding Macro and Micro Levels of  
Effective School Libraries from an Information Science Perspective

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*The present article describes a longitudinal, mixed methods, case study of Kansas, USA, school libraries. The overall aim in the study is to explore from an information science perspective the school librarian's involvement in information literacy instruction, student learning and achievement and meaningful educational partnerships. Sources and types of evidence from this five-year investigation are made available on a website with the intent of contributing to a strong community of evidence-based practice.*

*school libraries, information and technology literacy, evidence-based practice*

## Focus on Global Education:

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#### Effective School Libraries from an Information Science Perspective

The relationship between education and the well-being of people has long been recognized. Today American education law and policy makers maintain that education is the ticket to future productivity and that every child should have a ticket. This era has been fraught with concerns that disengaged United States American (USA) students are falling behind their Asian peers in academic learning (Steinberg, 1996). The school library has become a potential target for school improvement outlined and required in No Child Left Behind Act of 2001 (PL 107-110).

Fortunately, the conversation about improving education has evolved from *whether* we should teach about the world to *how* to best teach about the world given the present information explosion and everything else teachers have to do. Using information and technology is probably one of the greatest ways to improve and internationalize education. To achieve world-class learning and literacy that prepares young people for work and citizenship in a global society and enables them to participate fully in political, civic, and economic life in society, some fundamental, overarching questions that educators must ask and answer are: How can we ensure that global perspectives become an integral part of learning and literacy? What role does the school librarian have in meaningful, educational partnerships? This study explores interrelated variables to answer these questions in a longitudinal, mixed methods, case study of Kansas, USA, school libraries.

### Terms Defined

#### Information Age School

“The school would be more interactive, because students, pursuing questions of personal interest, would be interacting with other students, with teachers, with a vast array of information resources, and the community at large to a far greater degree than they presently do today. One would expect to find every student engaged in at least one open-ended, long-term quest for an answer to a serious social, scientific, aesthetic, or political problem. Students’ quests would involve not only searching print, electronic, and video data, but also interviewing people inside and outside of school. As a result, learning would be more self-initiated. There would be more reading of original sources and more extended writing. Both students and teachers would be familiar with the intellectual and emotional demands of asking productive questions, gathering data of all kinds, reducing and synthesizing information, and analyzing, interpreting, and evaluating information in all its forms.

In such an environment, teachers would be coaching and guiding students more and lecturing less. They would have long since discovered that the classroom computer with its access to the libraries and databases of the world is a better source of facts than they would ever hope to be. They would have come to see that their major importance lies in their capacity to arouse curiosity and guide it to a satisfactory conclusion, to ask the right questions at the right time, to stir debate and serious discussion, and to be models themselves of thoughtful inquiry” (American Library Association, 1989).

## Information Literacy

Information literacy is a set of abilities requiring individuals to "recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information” (American Library Association, 2006).

## World-Class Learning

World-class learning is a concept in the making. Bransford, Darling-Hammond, and LePage (2007) constructed a framework to illustrate three general areas of knowledge, skills, and dispositions that are important for any teacher to acquire: knowledge of learners and how they learn and develop within social contexts; conceptions of curriculum content and goals; and an understanding of teaching in light of the content and learners to be taught. “The framework provides a set of lenses on any teaching situation that teachers can use to reflect on and improve their practice” (p. 10). It is built on the assumption that “teaching is a profession with certain moral and technical expectations” (p. 10); in the USA, education serves “the purposes of a democracy (p. 10). This means that for schools to be democratic, and world-class, “they must assume the purpose of preparing young people for work and citizenship in a global society and of enabling students to participate fully in political, civic, and economic life in society; educators support equitable access to what society has to offer” (p. 10-11).

## Literature Review

School library media impact studies have been designed to answer questions about whether or not school librarians and fully licensed school librarians matter. The matter of significance is important because the U. S. Legislature in the No Child Left Behind (NCLB) Act of 2001 defined the criteria for “highly qualified” educators, and teacher-librarians were not listed among those in “core academic subjects” who need to have particular course work and credentials. As a result, educators’ qualifications for serving as teacher-librarians continue to vary from state to state, and paraprofessionals occupy the position of librarian in many schools. In many states such as Arizona and California, the position has even been eliminated in many school buildings all together. All teacher-librarians are at risk when considered on the periphery in education.

The first Colorado Study (Lance, Welborn, and Hamilton-Pennell, 1993) indicted that school library expenditures were a key predictor of academic achievement. Findings suggested that the amount and level of library staffing, collection size, and the amount of time the school librarian spends playing an instructional role are key library predictors. In the Alaska study (Lance, Pennell, Petersen, & Sitter, 2000) significant findings indicated that test scores tend to be higher where there is a librarian; a full-time librarian rather than a part-time one; and a part-time librarian rather than no librarian at all. The Texas study (Smith, 2001), Iowa study (Rodney, Lance, & Pennell, 2002), and Minnesota study (Baxter, Smalley, 2003) all indicated similar findings that student performance on achievement tests improved with investment of school library center resources and the presence of a librarian. The Ohio Study (2003) investigated students' perspectives of benefit from school libraries through elaborating concepts of "help." Ohio findings indicated that the school library and its services, including roles of school librarians, helped students in some way, regardless of how much, with their learning. By 2005, the research conducted by Lance et al. had been replicated in more than a dozen states with five different researchers or research teams (Lance & Callison, 2005). These studies produced consistency in data and some separation of effects, particularly economic investment effects.

Existing impact studies serve as a form of evidence when it comes to the need to sustain development of the school library media profession. Previous findings identify specific activities of the library staff that constitute planning an instructional role and the impact of library-related technology. The scarcity of evidence on the role of the teacher-librarian in meaningful, educational partnerships that emphasize information literacy instruction and global perspectives is very regrettable. Demonstrating that school librarians, along with other educators, prepare students for work, citizenship, and daily living in an information-rich environment is the kind of evidence that may make it possible to infiltrate the current NCLB position on school librarians and finally begin to list "teacher-librarian" as "highly qualified." It will be important to know how, and how much, is achievement improved when librarians collaborate more fully with other educators.

School library researchers must now design studies that use theoretical lenses to advance the relationship among variables and raise new questions about students' learning and information needs and educators' roles in user-centered information services. This is one such study. The new goals in this study are to conduct research that will generate theory about how educators teach and students learn in information age schools, and gather stronger evidence of practice impacts and outcomes that can be shared with teachers, administrators, public officials, parents and community members, and in so doing, benefit students in today's world. This study recognizes the school librarian as a professional educator who is both highly qualified and highly involved in information literacy instruction, and student learning and achievement.

This study attempts to contribute to the existing knowledge base by exploring the

influence of integrated, team-based instruction on students' development of research and academic skills. It examines by comparing Kansas Accountability Reports (licensed personnel) and Kansas Adequate Yearly Progress (AYP) reports, and by investigating whether test scores can be positively influenced by the extent to which active and collaborative instructional approaches are used by school librarians and content teachers.

This study answers these questions using a combination of quantitative and qualitative research methods and a constant comparison of data in a "mixed methods approach" (Creswell, p. 19) to identify links between instruction and student learning and achievement not only in reading, but also in mathematics, science, social studies, history/government, and writing.

At the macro level (institution), the study asks: 1) Does student performances on state assessments improve as a result of instruction based upon model State Library Media and Technology Standards that are aligned with state assessed content areas? 2) Is there a positive relationship between student performances on state assessments and students' access to a fully qualified library-media specialist? Even though similar questions have already been posed in statewide studies, it is important to understand annual State statistics on these matters. Annual Kansas statistical reports will be used to inform the field and to determine micro level methods for data collection for each of five years.

At the micro level (individual), the study asks school librarians: How are you involved in information literacy instruction including engagement in collaborative lesson planning, development, and delivery? Of particular interest is learning from participants in the study about the librarians' role in integration of information and technology literacy into school curriculum and students' learning activities that emphasize global perspectives.

### Theory-base of the Study

Neuman (2000) views theories at three levels, each with a different breadth of coverage: micro-level (small slices), meso-level (linking), and macro-level (large aggregates). Neuman's concept of levels was used in this study to rethink the issue of school library impact and to present a different, systematic view of the phenomena. The field of information science provides a macro level lens for explaining the school as a social institution; the theory of evidence-based practice explains decision-making at the organizational level; and theories of diagnosis of information needs and guided inquiry provide explanations for how librarians engage with students.

### Information Science: A Service Perspective

According to Rubin (2004), "The field of information science has much to offer when one is considering how to improve information service" (p. 74). This is particularly true for improving school library services. New information technologies have provided a

driving force for research in information science and contributed a great deal to our understanding of how information is created, organized, disseminated and used in society. A defining feature of library science is its “focus on the transmission of information to meet human needs” (p. 32).

Knowledge of information science, an “interdisciplinary field that draws on scientific, social scientific, and psychological fields” (Rubin, 2004, p. 32) when integrated into educators’ theory base provides a useful lens for examining many of the problems and tasks that now confront educators, administrators and policy makers. “Contemporary information science has made the shift in emphasis away from the book to information itself. Information science is sometime characterized as deinstitutionalized information library science; it is the library without walls, the entire world of information is the collection and the librarian or information scientist is the agent who acquires, organizes, and disseminates that information to meet the needs of people” (p. 32).

## Evidence-based Practice

Theory-based practice, also referred to by the medical profession (Melnik & Fineout-Overholt, 2005; Sackett, Straus, Richardson, Rosenberg, & Haynes, 2000) as evidence-based practice (EBP), is used throughout this study. Like EBP in the delivery of services in health care, EBP librarianship (Figure 1.) is a problem-solving approach that uses empirical research to identify best practices in library services and to design instruction for guiding students in their learning and academic achievement. When EBP librarianship is provided in a context of caring, it leads to decisions about best practices and outcomes for students. Active engagement with theoretical and empirical knowledge enables the school library media professional to evolve and to improve.

Figure 1. Evidence-based Librarianship Model

## The Process of Diagnosing Information Needs

The theory of diagnosing information needs is particularly relevant to this study as it provides foundational knowledge for determining best educational practices. It also provides a basis for informing school librarians’ actions and role in meaningful educational partnerships. According to Greer, Grover, and Fowler (2007), knowledge of information user behavior grows out of the field of information psychology. Information psychology “focuses on how individuals seek, acquire, organize, process, utilize, and store

information” (p. 80). These researchers assert that information psychology applies such theories as Piaget’s cognitive development theory, Jung’s personality theory, and Grindler and Stratton’s role theory to explain the process of diagnosing individual information needs.

Greer et. al. (2007) further state that “diagnosing information needs can occur at any point in the behavior of acquiring information: awareness of need, action decision, strategies for search, behaviors in search, evaluation, assimilation, memory and/or utilization” (p. 81). Their theory suggests points for diagnosing individual information needs that are likely to occur throughout students’ school days, not simply while in the library for a brief, scheduled visit. From this it is possible to extrapolate that individual information needs are present when, for example, a content teacher introduces a new topic or assignment; a student is faced with an action decision such as currency exchange with another country; strategies in search and behaviors for search occur in the midst of an exercise in determining the best approach to graphical simulations of human muscle motion and deformation; opportunities for evaluation, assimilation, memory and/or utilization are all involved in learning about who makes our clothes or cell phones to the pros and cons of international trade agreements.

While diagnosing information needs has typically been considered the work of the professional librarian involved in a reference interview, these examples suggest that all educators in a student’s academic life share roles in diagnosing individual information needs. The theory of diagnosing information needs in the context of today’s information age schools suggests the need for strong partnerships between content teachers, school librarians and technologists.

## The Theory of Guided Inquiry

We can gain insight into helping students acquire global perspectives as they learn and acquire literacy skills through the lens of theory on guided inquiry. According to Kuhlthau, Maniotes, and Caspari, 2007, the theoretical foundations of guided inquiry are grounded in constructivist theories including those of Dewey, Bruner, Kelly, Vygotsky, and Piaget. Kuhlthau et. al. assert that “Inquiry is initiated by someone who has something that needs investigation, a fundamental question, pressing issue, or troubling problem that requires further information” (p. 17). Kuhlthau’s (1993, 2004) more than twenty years of information search process (ISP) research, which includes children and adults, reveals that there are distinct stages (initiation, selection, exploration, formulation, collection, presentation, assessment) in the inquiry process, and some stages are more difficult for some individuals than for others.

Kuhlthau’s research provides evidence that educators should expect students to experience difficulties and confusion during the exploration and formulation stages of the information search process. She uses Kelly’s (1963) personal construct theory as a lens

for explaining her observations of students' experiences when encountering new ideas that often conflict with what they already know and accept. Kuhlthau points out that uncertainty is the beginning of the learning process and an important concept that underlies the inquiry process. Kuhlthau asserts that students need to learn about their own uncertainty and its relationship to seeking meaning. Her theory suggests the need to know more about a possible correlation between the quality of the school librarian's services and the student's openness and acceptance of new ideas.

Kuhlthau's ISP model has been shown in recent studies conducted by the Center for International Scholarship in School Libraries at Rutgers University (Todd, Kuhlthaus, and Heinstrom, 2005) to apply in technological information environments. The ISP model includes the stages of reflection and thinking that are easily overlooked when using electronic information. The IFS model is based on solid empirical knowledge about the individual search process and provides those involved in evidence-based librarianship professional expertise, knowledge and skills they can apply in practice. School librarians who rely on information science as a source for understanding and building strong partnerships are likely to lead, inspire, and transform schools into environments where all students makes sense of their world.

### Outcomes and Standards Provide Framework for Evidence

State and national standards for student learning provide a framework for the evidence that must now be generated. States have the opportunity to construct and use their own model standards for PreK-12 information and/or technology instruction.

### Kansas Model Standards for Library and Information Technology

Recently, Kansas school librarians and technologists came together to review existing standards and to create one new thoroughfare for teaching content-based, authentic inquiry. Benchmarks are aligned with instruction in content areas. These features draw special attention to the school librarians' instructional responsibility to collaborate with other educators and to be accountable for doing so. Figure 2.is an illustration of the merger of content, school library media and technology assessed standards coming together to form data sources in this study.



Figure 2. Kansas Study Data Sources

## AASL Standards for the 21<sup>st</sup> Century Learner

In October, 2007, the American Association of School Librarians (AASL) published “Standards for the 21<sup>st</sup> Century Learner,” which provide useful guidelines for world-class learning and literacy. These standards build on *Information Power: Building Partnerships for Learning* (1998), provide a plan for the school librarian to 1) serve as a collaborative instructional partner with the classroom teacher; 2) provide information access through various sources for all members of the learning community; and 3) to manage the infrastructure of the school library. These new standards define nine foundational common beliefs. While all nine beliefs are relevant to world class learning and literacy, these beliefs are particularly unique in their emphasis on student learning and achievement in terms of equitable access to information and learning in a social context as key components for education. These standards are expressed in skills, dispositions in action, responsibilities, and self-assessment strategies that 21<sup>st</sup> century students will need to become effective problem-solvers who question, find, evaluate, and share information.

## Methods

A longitudinal, mixed methods, case study of Kansas, USA, school libraries is being used to explore implications of the school librarian’s roles in information literacy instruction and meaningful educational partnerships. Kansas, population: 2,775,997 (U.S. Census Bureau, 2007), is a mid-western state in the central region of the USA, an area often referred to as America’s “heartland.” To best understand Kansas school libraries, this study serves to converge both broad quantitative trends from annual state accountability reports (phase one) and qualitative methods of open- and closed-ended questions (phase two). Quantitative research concepts and methods are used in phase one activities to study all grade levels and all Kansas school buildings. Qualitative research concepts and methods are used in phase two activities to focus on participant activities within selected school buildings. Figure 3. is a detailed outline of the simultaneous data collection procedures.

This study is most concerned with solving the problem. It is based on the assumption that collecting diverse types of data best provides an understanding of the research problem. It begins with a broad analysis of statistical data that can be generalized, and then focused on detailed qualitative, open- and closed-ended questions in surveys, interviews, participant observation protocol, and/or document analysis to collect detailed views of the participants. Details about data and data collection instruments are available on

the research Kansas Study of School Libraries (Dow & Lakin, 2005 - present) website.

<b>Research Year</b>	<b>Quantitative Methods Phase One</b>	<b>Qualitative Methods Phase Two</b>
2005-06 Year One	Statistical analysis of State of Kansas Department of Education Accountability Reports and Adequate Yearly Progress Reports.	Surveys sent to school librarians in school's that achieved the Standard of Excellence and employed a fully licensed school librarian.  Interviews in schools achieving high with and without school library media specialists, and achieving low with and without school library media specialists.
2006-07 Year Two	Statistical analysis of State of Kansas Department of Education Accountability Reports and Adequate Yearly Progress Reports.	Survey of school and non-school librarians; Focus on aspects of teaching global perspectives  Document analysis of librarian constructed units of study  Interviews with school administrators with and without school librarians
2007-08 Year Three	Statistical analysis of State of Kansas Department of Education Accountability Reports and Adequate Yearly Progress Reports.	Survey of pre-service elementary education students to learn about how competent and willing they are to take advantage of the librarian and library.  Evidence-based sources from Post-MLS School Library  Identify leaders in evidence-based practice and learn from them  Interviews, Observations
2008-09 Year Four	Statistical analysis of State of Kansas Department of Education Accountability Reports and Adequate Yearly Progress Reports.	To be determined
2009-10 Year Five	Statistical analysis of State of Kansas Department of Education Accountability Reports and Adequate Yearly Progress Reports.	To be determined

Figure 3. Kansas Study of School Libraries Mixed-Methods Data Collection Procedure.

This five-year, Kansas study began during the 2005-06 school year because many important factors came together at one point in time. These factors included: a new five-year assessment window (based on criterion reference testing) in reading, mathematics, writing, social studies (history/government), and science; Kansas Individual Data on Students (KIDS) database for managing student records; revised library-media standards with the addition of technology standards; locally administered 8<sup>th</sup> grade technology assessment; and, revised Kansas Quality Performance Accreditation system to meet no Child Left Behind requirements. The data collection and analysis in phase one and two take place in concert with five consecutive academic school years. At the writing of this article, second year (2006-07) data are being analyzed.

*Phase One, Years One – Five.* Kansas Licensed Personnel reports are used to

determine effects variables in school buildings with- and without fully-licensed school librarians. Quality Performance Accreditation (QPA) reports of scores by school buildings are reviewed. Statistical data are used to identify high achievement (met Standard of Excellence) by building and buildings on school improvement. Licensed Personnel Records and reading and math achievement reports are compared and organized into results charts.

*Phase two, Year One – Five.* Researcher-made tools for further investigating findings in phase one data are used to determine the school librarians involvement with student learning. The primary purpose of phase two is to present a grounded theory of information literacy instruction. For purposes of this paper, grounded theory (Creswell, 2003) is defined as theory generated from data systematically obtained and analyzed through the constant comparison method.

## Results

### Phase One Questions

During phase one, the study seeks to answer: Phase One, Q.1. Does student performance on state assessments improve as a result of instruction based upon State Library Media and Technology Standards that are aligned with state assessed content areas? Phase One, Q.2. Is there a positive relationship between student performances on state assessments and students' access to a fully qualified library-media specialist?

### Phase One Responses

*Phase One, Q.1.* There is initial statistical evidence of the presence of fully licensed school librarians in Kansas schools. Approximately 85% of Kansas school buildings employ at least one fully licensed school librarian. In small schools, there is sometimes one fully licensed school librarian to serve two school buildings. This finding appears to be stable.

*Phase One, Q. 2.* There is initial statistical evidence that most Kansas school building with fully licensed school librarians are earning high recognition for student learning and achievement. During 2005-06, of 341 school building that earned the Kansas Standard of Excellence, which required Annual Yearly Progress (AYP) in both math and reading, 301 (88 %) buildings have licensed school library media specialists, and 40 (12 %) have no licensed school library media specialist. This study revealed that the 12% is often explained by school librarians serving two building and not being reported in both, or school building employing school librarians with conditional licenses. This finding appears to be stable.

*Phase One, Q. 2.* There is initial statistical evidence that a small percentage of Kansas school buildings with fully licensed school librarians are not earning high

recognition for student learning and achievement. During 2005-06, of the 75 school buildings in Kansas that failed to achieve Annual Yearly Progress (AYP) in both Reading and Mathematics, 58 (77%) have licensed school library media specialists and 17 (23 %) have no licensed school library media specialist. The study revealed that in school buildings with no licensed school librarian, there were instances of para-educators or pre-service librarians employed. Occasionally, a licensed substitute teacher was assigned to the school library.

## Phase Two Questions

During phase two of each year, the study seeks to answer: Phase Two, Q. 1. How are you involved in information literacy instruction including engagement in collaborative lesson planning, development, and delivery? Of particular interest is learning about librarians' role in integration of information and technology literacy into school curriculum and students' learning activities. We first needed to establish the extent to which school librarians are involved in these ways.

## Phase Two Responses

*Phase Two, Q.1.* More than half (51%) of responding Kansas school librarians (n=97) in high performing schools reported involvement in collaboration with teachers that connects to something the content teachers were teaching in the classroom. School librarians were usually involved in teaching reading skills and teaching research skills and resources. At an international content and communication magnet school, the school librarians stated, "We have integrated technology into every part of our curriculum, both within the classroom and during library classes. Our students are actively involved in learning about the programs and resources that encourage their learning. I instruct with enrichment to aide students' knowledge area of specific topics."

In the initial year of the study, this question was difficult to answer due to Kansas school librarians' lack of tracking their own instructional involvement and lack of recording or reporting sources of evidence of student learning. Too often librarians create annual program-based reports without including details about their involvement in helping students to achieve learning outcomes.

*Phase Two, Q.1.* Low performing schools have been on school improvement plans for one year or more. These schools have high numbers of students on free and reduced school lunches. In one school, the interviewed respondent reported that the school is "like a revolving door. Many kids do not know where they will sleep tonight. Kids are members of gangs. Many students are living with grandparents, staying in hotels, and some sleep in cars. Kids just need to survive and save face is more important than learning. Some want to learn but they think if they show that they want to learn, they are being weak."

*Phase Two, Q.1.* A major focus on global education existed in a Kansas school building with a mission that emphasized international content and communication. Also, discovery of high numbers of students with diverse backgrounds and interests pointed to the need to teach school librarians more about instruction that requires global perspectives. As a result of this finding, “focus on global perspectives” will be targeted in 2008 Kansas Summer Institute for School Librarians professional development class.

## Conclusions

Viewing school libraries and librarianship through the lens of information science offers an opportunity for gaining new insight into the school librarian’s role as a “highly qualified” (NCLB, 2001) educational partner in information age schools. It is this information knowledge base that should be argued is the school librarian’s “core academic subject” (NCLB, 2001) and that which distinguishes professional school librarians from para-educators. First and second year data reveals opportunities that educational partners have to re-think and reform instructional practices and to develop new, collaborative practices that will better serve all students through a new focus on information and global perspectives. From this it becomes clear that a new content area should be added to distinguish learning in world-class education: information.

Initial data collection and analysis (year one and two of five) provided excellent opportunities to gain insight into questions raised in prior impact studies of school librarians and school librarians. By studying the Kansas State Department of Education Accountability Reports and Adequate Yearly Progress reports, a statewide picture of licensed school libraries emerged. This picture served to connect dots between findings from others states and the educational situations that exist in Kansas school buildings.

This study adds a longitudinal dimension that will go beyond earlier studies to create over time a stronger body of evidence related to administrative decisions about investing in school librarians. The quantitative data provides numeric evidence and presents the opportunity for a correlation study and to identify confounding variables in earlier studies. The qualitative data provides an insider view of integration of library and technology and content standards and the roles school librarians in teaching information literacy skills. This is particularly useful in immediately moving the field forward. It also provides librarians with information that can be used to become involved in their school’s improvement plan. Taken together, reporting on findings in this mixed methods approach appears from observations to have already stimulated the tendency for some school librarians to shift their thinking from a focus on a school library program-based mission to learner-centered outcomes and students learning needs. Study findings generate a new level of awareness of the need to collect data about how, and how much, librarians are involved in student learning. Leaders in doing so are stepping forward with good questions and approaches to gathering and reporting EPB.

Interview data provided an insider view of how school librarians can create new opportunities for diverse school populations to learn from each other through sharing interests and experiences, backgrounds and cultural knowledge. By mobilizing streams of knowledge, we can transform school environments into international contexts for teaching and learning. New insights from the data influenced plans for professional development on this topic at the 2008 Kansas Summer Institute for School Librarians. Year two of five data collection focuses on how school librarians as instructional partners can use information and technology to teach basic skills and create curriculum-based programs that cover a host of international issues and global perspectives.

Finally, the ongoing relationship among research, professional practice, and local action is central to EPB. This has critical implications for disseminating findings. Awareness of the need to share findings and related resources that can be continually updated and easily accessed led to the construction of a Kansas Study of School Libraries website, which includes survey and interview questions, reports of findings, new instructional and assessment resources, and urls for blog and wiki for sharing of practitioner generated exemplars. There is a master list of documents. This website will become a database of EBP.

Findings from this study also have many implications for training of school librarians and teachers. In fall 2008, Kansas post-Master of Library Science school library media interns at Emporia State University (ESU) will be involved in sharing multiple sources and types of evidence of student learning and ways of gathering evidence. Further, pre-service elementary education teachers enrolled (required at ESU for program completion) in a one-credit hour course titled “The Elementary Teacher and the Library Media Specialist: Partners in Teaching Literature Appreciation and Information Literacy” will be surveyed about their willingness and abilities to collaborate with the school librarian and to take advantage of the school’s library. The challenge is to provide sustained professional development and a commitment to EBP that will remove all doubt about the importance of professional librarians and networked libraries in creating world-class schools and education.

Visit the Kansas study’s website for continually updated information about this study (Dow & Lakin, 2005). <http://slim.emporia.edu/kschool/research/index.html>

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This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.