

# Causality: School Libraries and Student Success (CLASS)

American Association of School Librarians  
National Research Forum

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# Abstract

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On April 11 and 12, 2014, the American Association of School Librarians (AASL) held *Causality: School Libraries and Student Success (CLASS)*, an IMLS-funded national forum. Dr. Thomas Cook, one of the most influential methodologists in education research, and a five-member panel of expert scholars and practitioners led 50 established and emerging school library researchers in articulating a national research agenda to investigate causal phenomena in school library instruction, resources, and services.

Research in academic achievement and school librarianship has a strong foundation of over 25 correlational studies in which school librarians' activities and school library programs have been explored in relation to student learning and teacher support. The results of these studies suggest that complementary research should be conducted to establish a causal relationship between the work of effective school librarians and the creation of motivated, engaged, and agile learners.

The goals of this white paper are to:

1. Capture the rich discussion emanating from the CLASS forum surrounding research and causality.
2. Propose a progression of research methods and projects that will support efforts toward theory building, exploratory research, and demonstration research; and
3. Outline mechanisms by which a community of scholars can be cultivated and nurtured toward furthering the research agenda and its activities.

# Introduction

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Today's students must navigate an information terrain that demands sophisticated search, location, evaluation, and creation skills. They are facing a maze of ethical and safety decisions related to social media and digital resources. They need to be prepared for the demands of tomorrow's workforce and higher education. Myriad forces such as the common standards movement's emphasis on conceptual application; growing global needs for dynamic, innovative, and flexible workplace readiness skills; and ubiquitous information and technology heighten the demands on educators responsible for these students. State-certified school librarians and other educators who can address these challenges through the creation of effective learning spaces are needed now more than ever and yet fiscal cutbacks and other challenges threaten these positions and learning spaces in many schools. The time is now and the need is urgent to demonstrate the relationship of state-certified school librarians leading effective school library programs with student learning and success.

More than ever, we understand that the profession of school librarianship is broad and complex. Professional, certified school librarians are educators, information specialists, and leaders. They possess the expertise, knowledge and influence to ensure students' mastery of a wide range of cognitive, interpersonal, and intrapersonal skills. However, a number of states have fewer than half of schools with a full-time certified school librarian and the field has made little progress in changing that, despite active support in some areas (National Center for Education Statistics, 2009-2012). Research is needed to demonstrate what kinds of effects a quality school library program, defined as a fully funded and fully staffed learning space led by a state-certified school librarian, has on student learning and success. A single driving question of this white paper is: How might school library researchers use causal research designs to determine which specific aspects of school library program positively impact student learning?

On April 11 and 12, 2014, the American Association of School Librarians (AASL) invited 50 scholars from a broad array of backgrounds including school librarianship and related fields. The group represented researchers in children's materials, curriculum, teaching and learning, technology, and program administration. *Causality: School Libraries and Student Success (CLASS)*, an IMLS-funded national forum was a bold move toward addressing issues facing the profession through new directions in research.

This white paper reports on this unprecedented convening of the nation's leading school library and educational researchers and furthers the development of a national agenda to demonstrate the positive influences of effective state-certified school librarians and quality

school library programs and learning spaces on student learning. The CLASS Forum reflects the diversity of voices in the educational field.

Dr. Thomas Cook, one of the most influential methodologists in education research, guided this historic meeting. The five-member expert panel was comprised of scholars and practitioners from information science, library studies and education including, John Brock (New York State Education Department), Joseph Maxwell (George Mason University, VA), Paul Lanata (Jefferson County Public Schools, KY), Marcia Mardis (Florida State University) and Shana Pribesh (Old Dominion University, VA). The panel was joined by 50 participants including established and emerging researchers, scholars outside the school library field, state department of education researchers, consultants and a representative from ALA's Office for Research and Statistics. The participants examined the issues of causality related to student learning and school libraries to articulate a research agenda and investigate causal phenomena in school library instruction, resources, and services.

School librarianship has a strong foundation of more than 25 correlational studies in which certified school librarians' activities and school library programs have been explored in relation to student learning and teacher support. The National Research Council (2012) has affirmed the need for further research into the necessary 21<sup>st</sup> century competencies for students. The results of these studies suggest that the school library research field is ready to add studies that attempt to establish a causal relationship between the work of effective state-certified school librarians and the creation of motivated, engaged, and agile learners.

To this end, the goals of this white paper are to:

- 1 Capture the rich discussion surrounding research and causality emanating from the CLASS forum.
- 2 Propose a progression of research methods and projects that will support efforts toward theory building, exploratory research, and demonstration research; and
- 3 Outline mechanisms by which a community of scholars can be cultivated and nurtured toward furthering the research agenda and its activities.

# Research and Causality Discussion

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**GOAL ONE: To capture the rich discussion emanating from the CLASS forum surrounding research and causality.**

This discussion is summarized according to the following three objectives to:

1. Acknowledge and affirm the importance of an existing body of correlational and case study research in the field
2. Identify the complexities surrounding efforts to move toward causal studies linking school librarianship and student learning
3. Identify methodological concerns

## Acknowledge and Affirm an Existing Body of Research

For decades, researchers interested in school libraries have explored the relationship of school-level characteristics of libraries, such as the size of school library collections or the qualifications of school library staff, and student achievement. Additionally there have been numerous case studies examining various aspects of school library practice. The foundational work of Carol Kuhlthau (1991) in the information seeking behaviors of students was frequently cited during the forum.

Large-scale research studies designed to measure the impact of school libraries and school librarians on student performance began as early as the 1960s, with Rutgers Graduate School of Library Research Professor Mary Virginia Gaver's investigation, *Effectiveness of Centralized Library Service in Elementary Schools Phase I* (1961, 1963). This study conducted under the joint sponsorship of the Office of Education and Rutgers and first published as a mimeographed report (1960) compared test scores of schools across three learning environments: schools with centralized school libraries managed by certified school librarians, schools with centralized school libraries managed by non-librarians, and schools with classroom libraries.

Gaver's (1960, 1961, 1963) study found higher average test score gains among students in elementary schools with centralized school libraries staffed by certified school librarians than in the other groups. In the five decades since Gaver's studies, a growing body of empirical evidence indicates a significant impact of strong school library programs staffed by certified school librarians on student performance along several effects or characteristics recurring in multiple large-scale studies.

Beginning with the first Colorado Study (Lance, Wellborn, and Hamilton-Pennell, 1993), more than 25 statewide studies, known as the School Library Impact Studies, have clearly

established, (after regression analyses to isolate effects of factors such as socioeconomics), a strong relationship between elements of school libraries, student access to certified school librarians, and the strength and quality of school library programs and their impact on student achievement test scores. These studies used bivariate correlations to establish possible relationships and regression analyses to account for the extent to which these relationships existed in light of external community and school factors.

For decades, researchers interested in school libraries have explored the relationship of school-level characteristics of libraries, such as the size of school library collections or the qualifications of school library staff, and student achievement. However, these studies' correlational approaches have failed to isolate the effects of school libraries in the same manner that experimental and certain quasi-experimental methods may allow.

### **Identify the complexities surrounding efforts to move toward causal studies linking school librarianship and student learning**

Discussions at the CLASS Forum often centered on the complexities of school librarianship and the difficulties these present in any attempt to show a causal relationship between school librarianship and student learning.

The first of these complex issues is the question of separating effective, certified school librarians from effective school library programs. This discussion was often framed within the issue of evaluation. A major question raised in the CLASS Forum was: For what should we hold school librarians accountable? Currently, certified school librarians are evaluated as part of the emerging teacher evaluation systems. CLASS participants reported that new evaluation systems have varying degrees of state structure and local flexibility. Evaluation instruments include a variety of processes depending on specific state requirements. Some states allow for local control of the evaluation process, some require the school librarian to be evaluated as a teacher, and some allow library organizations to develop the evaluation instrument.

CLASS participants indicated it is critical that administrators understand the difference between school library program evaluation and school librarian evaluation. AASL's *A 21st Century Approach to School Librarian Evaluation* (2012) offers a starting point by providing a single process for administrators and school librarians to use as a part of an overall accountability system. Other models that are in common use are: Mid-continent Research for Education and Learning (McRel) Teacher Evaluation System (Lauer, Dean, Martin-Glenn, & Asensio, 2005), Stronge Teacher Evaluation System (Stronge, 2010), Marzano Causal Teacher Evaluation Model (Marzano & Toth, 2011), and Danielson's Framework for Teaching (2011).

CLASS participants also felt this distinction between the school librarian and the school library program or learning space should be addressed in future research.

A second complexity is the fundamental question regarding how we define student learning and with what measures. Clearly, standardized testing dominates the current discourse surrounding student achievement. CLASS participants suggested other measures to consider including discipline referrals, attendance, parental involvement and graduation rates. Additionally participants talked about qualities such as curiosity, creativity, and persistence that appear in the *Standards for the 21<sup>st</sup> Century Learner* (AASL 2007) as components of information literacy that are not necessarily reflected by standardized tests.

Information literacy is defined in the AASL *Standards for the 21st Century Learner* as more than information skills to include competencies in multiple literacies, “including digital, visual, textual, and technological” (AASL, 2007). In addition, the National Research Council 2012 paper *Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century* contends that a key set of information fluency skills is required to foster the necessary deep learning, higher order thinking, and college and career readiness if students are to reach their full potential. This same report maintains that children will meet future challenges and achieve their potential as adults only if they develop a range of transferable skills and knowledge that prepare them to use information, connect information to prior knowledge, ask questions about what is not known, investigate answers, construct new understandings, and communicate with others to share those new understandings. As such, complex learning standards based on information literacy concepts have surfaced in various state standards as well as the Common Core State Standards (CCSS) and the Next Generation Science Standards (NGSS). Thus, current common standards-based school reform efforts often include strong emphases on information literacy skills, knowledge, dispositions, and self-assessments that ensure college and career readiness.

Instruction in the above areas is one of the school library characteristics correlated with improved student outcomes in almost all 25 of the state impact studies. CLASS participants emphasized a broad conceptualization of student learning that included the *Standards for the 21<sup>st</sup> Century Learner* along with other measures of student success such as graduation rates or discipline referrals.

A third tension relates to the complexity of the interlocking roles of the school librarian as teacher, instructional partner, leader, information specialist and program administrator (AASL, 2009, p. 17-18). In these roles the school librarian works with everyone in the school and in learning spaces that are inclusive but not limited to the room that serves as the school library. The metaphor of the school library as the hub or heart of the school is expanded as a learning space more comparable to the circulatory system connecting the



entire school with resources beyond the school. CLASS participants discussed the ways school librarians either directly or indirectly effect student learning in these various roles and inclusive learning space. The school librarian frequently works with other educators including teachers and administrators for example, through instructional or institutional planning, co-teaching, or the identification and provision of high quality resources. Isolating the school librarian effect is therefore challenging. CLASS participants will remember Dr. Cook's closing remarks where he shared parallels with research from the field of nursing demonstrating the positive impact of quality nursing on patient health. The impact of an effective nurse, for example, might be through direct services to patients or indirectly through collaboration with physicians or a patient's family.

### ***Methodological Concerns***

There are many studies that positively relate characteristics of school libraries and school librarians to student outcomes. Together, these provide a strong exploratory research base. However, the existing correlational studies of library effects on student and teacher outcomes, although valuable in identifying possible effects and the features of libraries and librarians that may cause them, are generally not able to rule out plausible alternative explanations in a credible way. It is important for research on this topic to move to other research designs that can effectively address alternative explanations. Strong causal studies partnered with the existing body of correlational research would strengthen claims about the influence of school libraries and school librarians on student learning.

The strongest such research design, theoretically, is an experimental design such as a randomized control trial (RCT), a design in which units (students, teachers, schools) are randomly assigned to either a treatment (e.g., a professional school librarian) or to a "control" condition. This probabilistically controls for confounding variables other than the presence/absence of the treatment. However, randomized control trial studies are both expensive and have major feasibility problems for the purposes of this agenda; randomly assigning librarians to schools, or students to librarians, seems difficult and even undesirable to implement.

The alternative would be to use one of the stronger nonrandomized experimental designs, generally known as quasi-experimental designs (Shadish, Cook, and Campbell, 2004). In the panel's discussion with Dr. Cook, a time-series design seemed to be a viable nonrandomized design. This would involve identifying schools that have either had a positive (e.g., hiring a professional school librarian for the first time) or negative (e.g., losing their school librarian) change and tracking selected outcome measures (based on the theory of library influence being developed) over a significant time period both before and after the change.

Another alternative quasi-experimental design that could be implemented is a matching study. In this case, school libraries or librarians with some treatment characteristic, such as a strong information fluency curriculum, are matched with libraries or librarians that are similar in many other characteristics other than the treatment variable (i.e., do not have information fluency characteristics but have the same SES mix of students, certification of librarian and teachers, and are in the same district). This matching mimics the random assignment process that can prove to be unworkable for experimental designs.

However, Dr. Cook pointed out that while experimental and quasi-experimental designs are optimal for summative evaluation (determining *whether* the intervention had an effect), they are not as useful for formative assessment (understanding how to *improve* existing programs). Shadish, Cook, and Campbell (2004), in what is widely viewed as the pre-eminent work on experimental and quasi-experimental designs, stated this issue more fully:

the unique strength of experimentation is in describing the consequences attributable to deliberately varying a treatment. We call this *causal description*. In contrast, experiments do less well in clarifying the mechanisms through which and the conditions under which that causal relationship holds—what we call *causal explanation*. (p. 9)

The latter requires more than simply determining whether a treatment is or is not effective. As Pawson (2006) argued,

The nature of causality in social programmes is such that any synthesis of evidence on whether they work will need to investigate how they work. This requires unearthing information on mechanisms, contexts, and outcomes. The central quest is to understand the conditions of programme efficacy and this will involve the synthesis in investigating for whom, in what circumstances, and in what respects a family of programmes work. (p. 25)

This requires using methods that can elucidate contextual influences and the processes by which these operate. These are particular strengths of qualitative, rather than quantitative, research. However, this need not be an either/or choice. A great many experimental and quasi-experimental studies have incorporated qualitative methods in their design (e.g., Weisner, 2005), and such methods often proved essential in understanding how the intervention actually operated and why it achieved the results that it did—key issues for improving the intervention, as well as for assessing if it can be generalized.

In addition to the questions generated above, the CLASS Forum participants identified the following urgent questions:

- How do strong school library programs defined as learning spaces staffed with state-certified school librarians contribute to the goal of educating youth for early literacy, life-long learning, and college and career readiness?
- What is the contribution that access to a strong school library program staffed with a certified school librarian makes for students from diverse backgrounds, including poverty and special needs?
- What are the unique comparative advantages provided by student access to a certified school librarian?

Research suggests student access to learning spaces provided by strong school library programs and certified school librarians is not equitable (Pribesh, Gavigan, and Dickinson, 2011). School librarians at all levels and in all kinds of schools need a strong voice with policy- and decision-makers, amplified by proof that is both scientific and able to be generalized, to ensure adequate resources and equitable access to school library programs that will help students achieve academic success.

Using the information above, we are now able to focus on the development of an actionable research agenda.

## Recommended Plan of Action

**Goal 2: Propose a progression of research projects utilizing rigorous methods that will support efforts toward theory building, exploratory research, and demonstration research.**

In *Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century*, the National Research Council's (2012) first recommendation provides a clear mandate for the kind of continued research needed to move the field forward:

Foundations and federal agencies should support further research designed to increase our understanding of the relationships between 21st century competencies and successful adult outcomes. To provide stronger causal evidence about such relationships, the programs of research should move beyond simple correlational studies to include more longitudinal studies with controls for differences in individuals' family backgrounds and more studies using statistical methods that are designed to approximate experiments (p.7).

Moving toward a research agenda that will culminate with projects utilizing rigorous research designs is a process. In the *Common Guidelines for Education Research and Development*, the U.S. Department of Education and the National Science Foundation (2013) articulate a progression of project designs that is followed by government agencies and that is particularly appropriate to guide AASL's ongoing work (See Table 1).

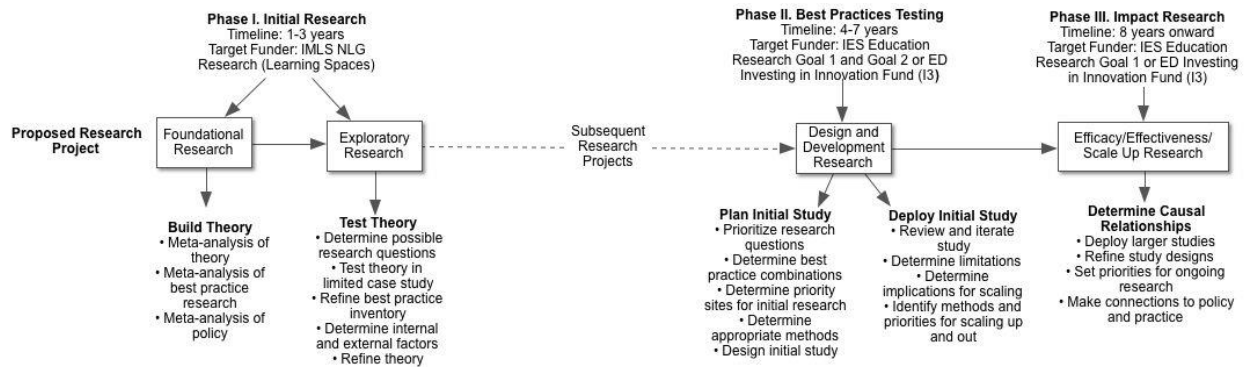
**TABLE 1**

Research Type	Purpose
Phase I. Initial Research	
Foundational Research	Advance the frontiers of education and learning; develop and refine theory and methodology; and provide fundamental knowledge about teaching and/or learning. Foundational Research studies may examine phenomena without establishing an explicit link to education outcomes.
Early-Stage or Exploratory Research	Investigate approaches to education problems to establish the basis for design and development of new interventions or strategies, and/or to provide evidence for whether an established intervention or strategy is ready to be tested in an efficacy study. Early-Stage or Exploratory Research should establish initial connections to outcomes of interest. Studies in this genre should support the development of a well-explicated theory of action that can inform the development, modification, or evaluation of an intervention or strategy.

<b>Phase II. Best Practices Testing</b>	
Design and Development Research	Develop new or improved interventions or strategies to achieve well-specified learning goals or objectives, including making refinements on the basis of small-scale testing in single or sequential projects.
<b>Phase III. Impact Research</b>	
Efficacy Research	Determine whether an intervention or strategy can improve outcomes under what are sometimes called “ideal” conditions.
Effectiveness Research	Estimate the impacts of an intervention or strategy when implemented under conditions of routine practice.
Scale-up Research	Estimate the impacts of an intervention or strategy under conditions of routine practice <i>and</i> across a broad spectrum of populations and settings.

**Table adapted from *Purpose of Foundational, Exploratory, and Development Research* (IES & NSF, 2013, p. 12)**

Within this framework, AASL seeks to develop a three-phase progression of projects that will center on the causal relationship between school libraries / librarians and student learning. Figure 1 provides an overview of the justification and evidence to be produced in each phase:



**Figure 1. Progress of Research Resulting from AASL CLASS (prepared by Marcia Mardis, CLASS panelist, and reprinted with permission).**

As the figure shows, AASL will pursue a research agenda that builds carefully toward a thorough and elaborate approach to causal research. These phases will be supported by internal and external funds.

Phase I is an initial research phase expected to last 1 to 2 years and the focus will be on theory generation about how school libraries and librarians affect student achievement through rigorous meta-analysis of existing theories, best practices, research, and policy.

This review will be distilled into an “armchair theory” that will be tested and refined in the context of limited case studies.

Phase II will commence with a period of planning in which the meta-analyses, limited case studies, and refined theory will be used to develop and prioritize research questions, sites, and possible designs. Phase II will also include a small-scale study in which questions and theory are deployed in a limited number of sites and reviewed for implications for scaling over the two-five year period of this phase.

Finally, in Phase III, AASL will deploy studies in which the causal relationships between the work of effective school librarians and student learning are examined on a larger scale.

### ***Phase I Initial Research—Theory Development***

How do school libraries and school librarians affect student learning? This basic question implies a set of processes and mechanisms through which influence travels. Currently there is no overarching theory as to how and why school libraries and librarians impact student achievement. Thus, the first stage of AASL’s process of setting a long-term research agenda centers on codifying theory about school libraries and school librarians that then can be tested.

Theory building includes formulating a set of concepts and ideas and the proposed relationships among them, a structure that is intended to capture or model something about the world. As LeCompte and Preissle (1993) stated, “theorizing is simply the cognitive process of discovering or manipulating abstract categories and the relationships among these categories” (p. 239).

Theorizing encompasses everything from so-called “grand theory,” such as behaviorism, psychoanalysis, or rational choice theory, to specific, everyday explanations of a particular event or state. The simplest form of theory consists of two concepts joined by a proposed relationship. Such a theory can be as general as, “Positive reinforcement leads to continuation of the reinforced behavior,” or as specific as, “An asteroid impact caused the extinction of the dinosaurs.” The important point is what *makes* this a theory: the linking of two or more concepts by a proposed relationship.

A major function of theory is to provide a model or map of *why* the world is the way it is (Strauss, 1995). It is a simplification of the world, but a simplification aimed at clarifying and explaining some aspect of how it works. Theory is a statement about what is going on with the phenomena that you want to understand. It is not simply a framework, although it can provide that, but a *story* about what you think is happening and why. A useful theory is one that tells an enlightening story about some phenomenon, one that gives you new insights and broadens your understanding of that phenomenon.

In Phase I of AASL's research agenda, the AASL community will work on establishing a theory about school libraries and librarians that will guide future research projects. This is a collaborative process that draws upon a wealth of existing exploratory research, instructional theory, and nascent theory about school libraries and school librarians. This may involve establishing within AASL a National Center for School Library Research that serves as an advisory center and clearinghouse for the best practices research projects. It may involve coordinating a prioritized national list of research questions and research sites. This national center may also serve as a central dissemination point for research done with school libraries.

The first stages will involve meta-analyses of existing studies to isolate effective practices. Meta analyses involve the review and aggregation of studies. Although the meta-analyses may be prepared by a small set of educational researchers, it is then important that the school library community as a whole review these findings about likely library processes. Then, these processes should be put together in a concept map, or theory, of why and how school libraries and librarians affect student outcomes.

The final step in the initial research phase is to develop exploratory projects to test the proposed relationships put forth during the initial theory development. In this phase, school library researchers will test the theoretical linkages through several small-scale projects. In some respects, the school library community has been engaged in this phase for quite some time with the various impact studies.

### ***Phase II Best Practices Research***

With a strong theoretical foundation and empirical evidence, the second phase of school library research will center on best practices research. During this phase, the school library/librarian community will engage in a process of examining work from the first phase to build consensus around a list of best practices that have surfaced from theory testing and small-scale studies. This focused list of best practices will then drive a prioritized set of rigorous research studies.

The winnowing of priorities is a difficult but necessary process. In this phase, AASL will facilitate the community discussion about what are the most effective practices in school librarianship. Using empirical work, the identification of best practices will allow the community to focus the limited resources while developing evidence-based practices.

Armed with a list of best practices, AASL and other educational researchers can then develop a focused research agenda designed to test the efficacy of the purported best practices rigorously.

The development and conduct of a select few small-scale but rigorously designed research projects that examine the efficacy of the prioritized best practices is also part of this phase. With priorities in hand, AASL will work with researchers to design research studies that employ research designs centered on isolated causal mechanisms. These studies may employ quasi-experimental designs, such as time-series or matching designs, depending on naturally occurring phenomena in the school library landscape. With a group of small-scale yet rigorously designed and executed studies completed, the research agenda will be ready to move on to measure large-scale impact.

### ***Phase III Impact Research***

Best practices are not useful unless they work in most instructional settings. Thus, the third phase of the AASL research agenda has to do with effectiveness research on a large scale. The most promising practices will be studied in a rigorous manner across multiple sites. Perhaps the most expansive and costly stage of the research agenda, this culminates the process of formulating and testing theory, narrowing of priorities, and gathering evidence based on the most rigorous scientific processes. Details about Phase III will be developed in the first two phases of this agenda.

Studying scaled-up instructional practices involves a multi-year as well as multi-site approach often utilizing randomized control trials. Coordinated from the national school library research center and funded through external mechanisms (i.e., an Investing in Innovation Fund (i3) grant), scaled-up work will necessarily involve teams of educational researchers around the nation. Earlier national initiatives in school librarianship, most notably the Knapp School Library Project and Library Power, deliberately focused on model school libraries and demonstration programs. CLASS would significantly shift the focus toward an extensive research agenda similar in scope and impact to these significant and historical initiatives.



## Community of Scholars

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***Goal 3: Outline mechanisms by which a community of scholars can be cultivated and nurtured toward furthering the research agenda and its activities.***

Participants at the Forum discussed strategies to sustain communication and relationships established and developed at the event.

The CLASS Forum represented an unprecedented gathering of experienced and emerging scholars to develop a national and fundable agenda for research directed at the issues surrounding school librarianship and student learning. Participants included recognized and published leaders in the field, doctoral students, new researchers, and other leaders from the field. Discussions over two days highlighted the complexities of the surrounding issues of defining student achievement, understanding distinctions between effective school library programs and effective school librarians, and remaining cognizant of wide-ranging school contexts.

School library researchers are dispersed across organizations, including sections, committees, and special interest groups of the American Library Association (ALA), the Association of Library and Information Science Educators (ALISE), the International Association of School Librarians (IASL) and the International Federation of Library Associations (IFLA) and the American Educational Research Association (AERA). These various venues reflect the diverse affiliations of many scholars with various fields of education, librarianship, and higher education yet may also serve to circumvent the formation of a unified community of scholars concerned with research in school librarianship.

As we move forward with the long-term research agenda outlined in this white paper, we are cognizant of the need to continue the conversation through the publications and conferences of these various organizations. *School Library Research (SLR)* has offered to devote an issue to the Forum. An annual gathering similar to the CLASS Forum that pulls together experienced and novice researchers along with practitioners and state leaders is also key to sustaining the momentum established by the Forum as the field moves forward through the phases recommended in this document. A Task Force has been established within AASL to explore an annual meeting and other means of connecting the community.

Participants discussed various means to stay in touch in the interim, including Twitter hashtag #aaslres, Facebook, and virtual meetings or hangouts. A listserv for CLASS participants was recommended and has been established. Another suggestion included the formation of a clearinghouse of relevant research publications, reports, and conference papers. The establishment of a Center for Research in School Librarianship such as the one

recommended in Phase Two of this White Paper would act to further reify this community of scholars.

Complex problems call for the networked efforts of a community of scholars. The CLASS Forum was a first effort that demands follow-through from participants and leaders in the field. The AASL Board of Directors has moved to establish a Task Force on the Community of Scholars (COS) to institutionalize these efforts.

## Conclusion

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*Causality: School Libraries and Student Success (CLASS)*, an IMLS-funded national forum was a bold move toward addressing issues facing the library profession through new directions in research. A result of the forum, this white paper reports on an historic and unprecedented convening of the nation's leading school library and educational researchers to further the development of a national agenda to demonstrate the positive influences of effective state-certified school librarians and quality school library programs and learning spaces on student learning.

School librarianship has a strong foundation of more than 25 correlational studies in which school librarians' activities and school library programs have been explored in relation to student learning and teacher support. The results of these studies suggest that it is time to probe further and attempt to establish a causal relationship between the work of effective school librarians and the creation of motivated, engaged, and agile learners.

Specifically, the goals of this white paper are:

***Goal 1: To capture the rich discussion surrounding research and causality emanating from the CLASS forum.***

This discussion is summarized according to the following three objectives to:

1. Acknowledge and affirm the importance of an existing body of correlational and case study research in the field
2. Identify the complexities surrounding efforts to move toward causal studies linking school librarianship and student learning
3. Identify methodological concerns

***Goal 2: To propose a progression of research methods and projects that will support efforts toward theory building, exploratory research, and demonstration research.***

Moving toward a research agenda that will culminate with projects utilizing rigorous research designs is a process. In the *Common Guidelines for Education Research and Development*, the U.S. Department of Education and the National Science Foundation (2013) articulate a progression of project designs that is followed by government agencies and that is particularly appropriate to guide AASL's ongoing work.

Within a framework encompassing initial research, best practices testing, and impact research, AASL seeks to develop a three-phase progression of projects that will center on the causal relationship between school libraries / librarians and student learning.

***Goal 3: To outline mechanisms by which a community of scholars can be cultivated and nurtured toward furthering the research agenda and its activities.***

A major goal of the CLASS Forum was to create a rich and diverse community of scholars focused on rigorous, empirical research in school librarianship. Participants at the Forum discussed strategies to sustain communication and relationships established and developed at the event.

Complex problems call for the networked efforts of a community of scholars. The CLASS Forum was a first effort that demands follow-through from participants and leaders in the field. Many participants and panel members at the CLASS forum noted the historical significance of this gathering. As the phases move forward, this event will likely be viewed as seminal for the profession and research in the field.

Dr. Cook, keynote speaker, encouraged participants to identify and pursue the prize of greatest interest and concern to the profession. A resounding consensus of the participants was a focus on student learning. The research established and conducted as a result of the CLASS Forum will have implications for all stakeholders concerned with student learning in multiple learning spaces. Ultimately, tomorrow's students will be the beneficiaries as they identify and solve the problems and questions of the next century.

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# Appendix A: Participants

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## Keynote

Thomas Cook, Ph.D.  
Professor, Faculty Research Fellow  
Northwestern University

## Panelists

John Brock, MLS  
Associate  
New York State Education Department

Joseph Maxwell, Ph.D.  
Professor  
George Mason University

Paul Lanata, Ed.D.  
Director, Library Media Services  
Jefferson County Public Schools

Marcia Mardis, Ed.D.  
Associate Professor  
Florida State University

Shana Pribesh, Ph.D.  
Associate Professor  
Old Dominion University

## Moderators

Jody Howard, Ph.D.  
Director of Palmer School  
Long Island University

Sue Kimmel, Ph.D.  
Assistant Professor  
Old Dominion University



## Participant List

- Sheila Baker, MLIS, NBCT, ABD, Visiting Faculty, Old Dominion
- Susan Ballard, M.S., Adjunct Professor, Simmons College
- Joan Bessman Taylor, Ph.D., Assistant Professor, University of Iowa
- Robin Boltz, Ph.D., Library Director, North Carolina School of Science and Mathematics
- Elizabeth Burns, M.S. Ed., PhD Candidate, Old Dominion
- Maria Cahill, Ph.D., Assistant Professor, University of Kentucky
- Karla Collins, Ph.D., Assistant Professor, Longwood University
- Helen Crompton, Ph.D., Assistant Professor, Old Dominion
- Gail Dickinson, Ph.D., Associate Dean, Old Dominion
- Jeffrey DiScala, PhD Candidate, University of Maryland
- Mirah Dow, Ph.D., Associate Professor, Emporia State University
- Aaron Elkins, PhD Candidate, Florida State University
- Nancy Everhart, Ph.D., Professor, Florida State University
- Ann Ewbank, Ph.D., Clinical Associate Professor, Arizona State University
- Lesley Farmer, Ed.D., Professor, California State University-Long Beach
- Deborah Lang Froggart, Adjunct Professor, Simmons College, Boston Arts Academy/Fenway High School Library Director
- Julie Marie Frye, Ph.D., Indiana University
- Loretta Gaffney, Ph.D., Lecturer and Visiting Researcher, UCLA
- Karen Gavigan, Ph.D., Assistant Professor, University of South Carolina
- Lucy Santos Green, Ed.D., Assistant Professor, Georgia Southern University
- Violet Harada, Ed.D., Professor Emerita, University of Hawaii
- MaryAnn Harlan, Ph.D., Lecturer, San Jose State University
- Meghan Harper, Ph.D., Associate Professor, Kent State University
- Renee Hobbs, Ed.D., Professor and Founding Director, University of Rhode Island
- Linda Hofschire, Ph.D., Research Analyst, Colorado Department of Ed
- Sandra Hughes-Hassel, Ph.D., Professor, University of North Carolina
- Melissa Johnston, Ph.D., Assistant Professor, University of Alabama
- Christie Kaaland, Ph.D., Core Faculty, Antioch University
- Keith Curry Lance, Ph.D., Consultant, RSL Research Group
- David Loertscher, Ph.D., Professor, San Jose State University
- Crystle Martin, Ph.D., Postdoctoral Researcher, University of California- Irvine
- Heather Moorefield-Lang, Ed.D., Assistant Professor, Virginia Tech
- Judi Moreillon, Ph.D., Assistant Professor, Texas Woman's University
- Rebecca Morris, Ph.D., Assistant Professor, University of North Carolina- Greensboro

- Annie Norman, Ed.D., State Librarian, Delaware Division of Libraries
- Courtney Pentland, M.S. Ed., Lead Teacher/Research Librarian, Omaha Public Schools
- Casey Rawson, PhD Student, University of North Carolina, Chapel Hill
- Rebecca Reynolds, Ph.D. Assistant Professor, Rutgers University
- Kathy Rosa, Ed.D., Director, ORS, American Library Association
- Ruth Small, Ph.D., Professor, Syracuse University
- Daniella Smith, Ph.D., Assistant Professor, University of North Texas
- Jeannie Standal, School Library Consultant, Idaho Commission for Libraries
- Joette Stefl-Mabry, Ph.D., Associate Professor, University at Albany- SUNY
- Mega Subramaniam, Ph.D., Assistant Professor, University of Maryland
- Joyce Valenza, Ph.D., Assistant Professor, Rutgers University

### **AASL Research and Statistics Committee Members**

- Sung Un Kim, Ph.D., Assistant Professor, The Catholic University of America
- Rebecca Hunt, Ph.D., Assistant Professor, Northern Illinois University

### **AASL Executive Director**

- Sylvia K. Norton

### **Participant Demographics**

States Represented:

Alabama	Indiana	New York
Arizona	Kansas	North Carolina
California	Kentucky	Pennsylvania
Colorado	Maine	Rhode Island
Delaware	Maryland	South Carolina
District Of Columbia	Massachusetts	Texas
Florida	Missouri	Utah
Georgia	Nebraska	Virginia
Hawaii	New Hampshire	Washington
Idaho	New Jersey	
Illinois	New Mexico	

## Degrees Earned by Participants:

BA/Elementary Education- 1	BS/MS Sociology- 1
BA/MA Communication- 2	BS/MMLS-4
BA/MA Psych- 1	BS-1
BA/MeD- 2	Certificate-Library Leadership-1
BA/MLIS-10	Doctoral Candidate- 8
BA/MLS- 11	Ed.D- 10
BS/MeD-1	MA/Education- 1
BS/MLIS-7	MA/Elementary Teaching-1
BS/MLS-5	PhD-26
BS/MS Education- 1	

## Position/Total Years Held:

1st Grade Teacher- 4	Associate Professor- 46
1st Grade Teacher/IT Co-coordinator/TA- 2	Associate Research Professor-6
5th Grade Teacher- 16	Asst. to President, ALA- 2
6th Grade Science Teacher- 2	Behavioral & Social Science Researcher- 2
7th Grade Science Teacher- 2	Blogger- 7
Acting Director-2	Branch Librarian- 2
Adjunct Assistant Professor- 6	Branch Manager- 8
Adjunct English Instructor- 2	Chair-14
Adjunct Faculty-6	Children's Librarian- 5
Adjunct Instructor-6	Classroom Teacher- 15
Adjunct Lecturer-1	Clinical Assistant Professor- 5
Adjunct Professor- 28	Co-Instructor- 1
Administrative Information Specialist- 5	Collateral Instructor-1
Adult ESL Teacher- 1	Columnist- 10
Adult Services Librarian- 2	Communications Web Services Marketing- 5
Advanced Networking Researcher-7	Consultant-27
Affiliated Academic Professional- 2	Coordinator- 12
Affiliated Faculty-7	Co-principal Investigator- 3
Assistant Division Director-3	Core Faculty-14
Assistant Lecturer-1	Cultural/Global Studies Curriculum
Assistant Librarian- 4	Consultant-1
Assistant Professor & Director- 6	Curriculum Specialist- 10
Assistant Professor- 73	Digital Media & Learning Hub PostDoctoral
Assistant Research Professor-4	Research- 2
Assistant-Full Professor-8	Director- 72
Associate Director-3	Director of Business Development-2
Associate Librarian- 1	Director of Graduate Studies-1
Associate Professor & Director- 4	Director of Student Services-5

Director PhD Program-2  
 Director, Media Services- 4  
 Drama Teacher- 4  
 Education & Social Sciences Librarian- 6  
 Educator- 36  
 Elementary Education Electronic Evidences  
 Reviewer- 1  
 English Teacher- 8  
 Evaluator-1  
 Faculty Associate-4  
 Faculty-13  
 Founding Director- 11  
 Fulbright Scholar- 1  
 Graduate Assistant-5  
 Graduate Consultant-5  
 Graduate Library Assistant-1  
 Graduate Reference Assistant-1  
 Graduate Research Assistant-6  
 Graduate Research Associate-1  
 Graduate Teaching Assistant-6  
 Guest Instructor-1  
 Guest Lecturer-20  
 Head of Childrens & YA- 2  
 Head of Film & Video- 3  
 Head of Reference- 2  
 Humanities/Social Science Indexer- 1  
 Information Literacy Scholar-1  
 Instructional Consultant-2  
 Instructor- 12  
 Interim Director-2  
 IT Lecturer-2  
 Language Arts Dept Chair- 7  
 Language Arts Teacher- 4  
 Lead Instructor & Course Developer-1  
 Lead Media Specialist- 3  
 Lead Project Assistant- 1  
 Lead Teacher/Research Librarian- 1  
 Lecturer/Instructional Design- 3  
 Lecturer-11  
 Librarian- University-5  
 Library Assistant- 6  
 Library Director-22  
 Library Liaison- 4  
 Media Coordinator- 4  
 Owner-28  
 Post-Doctoral Fellow-1  
 Post-Doctoral Researcher-1  
 Principal Investigator- 3  
 Professor & Associate Dean- 1  
 Professor & Director- 12  
 Professor- 51  
 Professor Emerita- 1  
 Program Development Administrator- 2  
 Project Assistant- 1  
 Project Director- 2  
 Public Services Project Assistant- 2  
 Readers' Services Librarian- 1  
 Reference & Instruction Intern- 1  
 Reference Librarian- 7  
 Research Analyst-4  
 Research Assistant-13  
 Research Associate-2  
 Research Consultant-2  
 Research Investigator-5  
 Research Practicum- 1  
 Research Team Member-1  
 School Librarian (Elementary)- 47  
 School Librarian (High School)- 46  
 School Librarian (K-12)- 115  
 School Librarian and International  
 Baccalaureate Coordinator- 1  
 School Library Consultant-1  
 School Library Media Intern- 1  
 School Library Specialist- 13  
 Science Content Developer- 1  
 Secondary English & Drama Teacher- 18  
 Secondary Programs Project Coordinator-3  
 Senior Lecturer-6  
 Senior Scientist- 3  
 Social Studies Teacher- 3  
 State Librarian- 12  
 Student Assistant- 1  
 Student Teacher Supervisor- 2  
 Substitute Teachers- 2  
 Summer School Instructor-6  
 Supervisor, Adult Services- 5

Teacher/TA- 10	Tenured Faculty-12
Teacher-Planner- 5	Tenured Professor-15
Teaching Assistant- 12	Vice President/Senior Acquisitions Editor- 7
Teaching Fellow- 6	Visiting Assistant Professor-1
Teaching Librarian- 52	Visiting Associate Professor- 1
Technical Services Coordinator- 2	Visiting Faculty-2
Technology Education Consultant- 1	Visiting Instructor- 1
Technology Specialist- 1	Visiting Lecturer-2
Tenured Assistant Professor-6	Visiting Librarian- 1
Tenured Associate Professor-2	Youth Services Librarian- 2

## Appendix B: Further Reading

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### Methodological readings causal inferences

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## Appendix C: Timetable

*Causality: School Libraries and Student Success (CLASS)*  
**Schedule of Completion (Year 1)**

Activity	Dec 2013	Jan 2014	Feb 2014	Mar 2014	Apr 2014	May 2014	June 2014	July 2014	Aug 2014	Sept 2014	Oct 2014	Nov 2014
Project Initiation												
Contract with forum keynote presenter, expert panel and writer												
Formal contract with hotel for forum site												
Call for forum participant nominations												
Keynote presenter, expert panel and committee finalize forum content/agenda												
Finalize participant list, contact participants and finalize travel logistics												
Convene AASL Research Forum and draft white paper												
Writer to work with panel to finalize white paper												
Develop dissemination and communication plan for white paper												
Conduct AASL webinars/chats for community presentation and feedback from non-conference attendees												
Publish final draft of white paper to community												
AASL to sponsor presentation of white paper at ALA Annual Conference												
Development of IMLS National Leadership Grant Project Grant by expert panel based on white paper recommendations and community feedback												
Post summit survey to participants gauging impact of summit on research agenda												
Explore possible collaboration and partnerships for IMLS Program Grant												
Submit proposal to present white paper at ALISE Annual Conference (Association for Library and Information Science Education)												
Submit proposal to present white paper at AERA Annual Conference (American Educational Research Association)												

*Causality: School Libraries and Student Success (CLASS)*  
**Schedule of Completion (Year 2)**

Activity	Dec 2014	Jan 2015	Feb 2015	Mar 2015	Apr 2015	May 2015	June 2015	July 2015	Aug 2015	Sept 2015	Oct 2015	Nov 2015
AASL to sponsor presentation of white paper at ALA Midwinter Meeting "School Library Research" Forum												
AASL to sponsor presentation of white paper at ALISE Annual Conference												
Apply for IMLS Program Grant												
AASL to sponsor presentation of white paper at AERA Annual Conference												
AASL to sponsor presentation of white paper at ALA Annual, Educators of School Librarians Section (ESLS), Research Presentation												
AASL to sponsor presentation of white paper at AASL National Conference Research Symposium												

## Appendix D: Communications Plan

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- Draft white paper presented on second day of CLASS Forum
- Draft white paper published in early May
- Formal presentation and discussion at ALA Annual Conference
- Present at national conferences (including ALA Annual Conference, AASL biennial National Conference, ALISE Annual Conference, and AERA Annual Conference)
- Webinar to seek input from the field and to inform the writing of the National Leadership Grant application