CLASS Matters: Supporting the National School Library Standards by Furthering AASL's Research Agenda

The National School Library Standards for Learners, School Librarians, and School Libraries (NSLS) released by the American Association of School Librarians (AASL) in November 2017, marks a historic moment in the profession. Converging with the recognition of school libraries and the importance of evidence expressed in the Every Student Succeeds Act (ESSA), the national education law, the NSLS provides an opportunity for school librarians to participate in and advocate for valuable contributions to learning. The NSLS also reflects a powerful context in which to view school librarianship research.

The coordination between the NSLS and AASL's research agenda is the result of several years of deliberation and planning, beginning with AASL's 2014 white paper, "CLASS: Causality, School Libraries, and Student Success." This paper included an ambitious research agenda centered on school librarian effectiveness and focused on building on the promising results of prior correlational research by investigating causal relationships between certified school librarians and positive learner outcomes. In this article, we will explore the research agenda's development and validation efforts as it links to the NSLS.

Inquiry: A Shared Foundation

The AASL research agenda parallels the structure and ideas of the NSLS. The NSLS centers on six shared foundations, or one-word conceptual overviews: inquire, include, collaborate, curate, explore, and engage. Each shared foundation is elaborated in a key commitment, as Table 1 summarizes (AASL 2017).

Table 1. National School Library Standards' Shared Foundations and Key Commitments			
Shared Foundation	Key Commitment		
Inquire	Harness their prior knowledge to bring new meaning to the answers to their questions and address their knowledge gaps; build collective knowledge; and strengthen intellectual tools to sustain an inquiry process.		
Include	Integrate other perspectives in understanding; build balanced perspectives and develop skills to articulate ideas; develop comprehensive and authentic knowledge products; exhibit tolerance for and encourage differing viewpoints; and reflect on all perspectives.		
Collaborate	Work with others to broaden their ideas and achieve common goals, often in new and innovative ways; think critically to solve problems that cannot be solved independently; negotiate new and shared meanings; solicit and respond to feedback from others; and adapt thinking to new ideas and situations.		
Curate	Evaluate information; describe resources to be found and understood by others; include new information in their existing knowledge; share knowledge with others; and integrate resources into larger learning networks.		
Explore	Consider existing knowledge, formulate authentic questions, experiment with physical and intellectual pursuits, collaboratively investigate answers, self-assess progress, and openly receive constructive feedback to strengthen skills.		

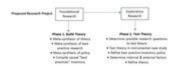
Engage

Develop dispositions to participate ethically and respectfully in communities of practice; produce materials based on valid information; act ethically and responsibility in information sharing; and extend learning by personalizing their use of information.

As Table 1 depicts, the first shared foundation in the NSLS is "Inquire." School librarians teach inquiry and engage in inquiry to understand and strengthen their practice in order to improve learners' outcomes. This ongoing professional inquiry has resulted in a significant body of research that documents correlations between effective school library elements and learner achievement measures. Mary Virginia Gaver's research, originally published in 1960 and re-released in 1963, is foundational. In her seminal correlational study, she found significantly higher learner test scores in schools with centralized school library collections staffed by a certified school librarian versus schools in two comparison conditions: schools with centralized school library collections staffed by non-librarians and schools with classroom collections but no centralized library collection or services. In the decades since Gaver shared her findings, Keith Curry Lance, along with other researchers at Library Research Services, conducted numerous large statewide studies, known as the "State Impact Studies," that have continued to demonstrate the significant correlational relationship between school libraries staffed by certified school librarians and learner reading scores. These studies' results created a warrant for subsequent school library research not only by documenting areas of school librarianship that were significantly correlated with high achievement (compiled in Scholastic 2016), but also through initiating a research agenda by gathering the correlational findings that are often vital for establishing future research directions.

Development of AASL's Research Agenda

In a recent issue of *School Library Connection*, Gary Hartzell acknowledged the contribution of the State Impact Studies to the field but explained that the results of these large-scale studies may not be effective for persuading building level principals of school librarians' valuable contributions. Principals, Hartzell suggested, want to know what works in schools like theirs with learners like theirs. Because school contexts vary widely by level, organization, culture, socioeconomic circumstances, and learner and educator characteristics, school leaders want research targeted to these differences. Hartzell advised school librarians to look for research to share with principals that disaggregates findings or is centered on specific contexts (2017). Hartzell has also pointed out that researchers should "investigate ways in which quality libraries and librarians improve the odds that other school improvement efforts and programs will succeed" (2007, 7). In these two points, Hartzell challenged school library researchers not only to move beyond large scale correlations, but also to identify and test best practices that positively affect learning.



For the past few years, AASL has been on a related quest to identify possible causal factors of effective school librarians and libraries related to learning outcomes. The "CLASS: Causality: School Libraries and Student Success" project, now known as "CLASS I," received funding from an Institute for Museum and Library Services (IMLS) national leadership planning grant, to convene participants in a two-day forum to explore a research agenda to move the field of school library research in this new direction. In April 2014, fifty researchers with diverse but connected expertise in school librarianship, education, and youth interacted with a panel led by Thomas Cook, an influential methodologist in educational research with particular knowledge of causal research designs. With the input of the attendees, the panel drafted a white paper which proposed an ambitious research agenda directed toward causal research in the field, as Figure

1 shows (AASL 2014).

Figure 1 illustrates an approximately ten-year research agenda that begins with foundational research and builds in a deliberate, scaled way toward causal research. This agenda reflects the best practices of research agenda creation, following the recommendations of the "Common Guidelines for Educational Research and Development" (IES and NSF 2013).

Table 2. ESSA Levels of Evidence Linked to Study Types				
Level and Evidence Type	Definition (Type of Study)			
Level 1—Strong	Supported by one or more well-designed and well-implemented randomized control experimental (causal) studies.			
Level 2—Moderate	Supported by one or more well-designed and well-implemented quasi-experimental (causal) studies.			
Level 3—Promising	Supported by one or more well-designed and well-implemented correlational studies with statistical controls for selection bias.			
Level 4—Demonstrates a Rationale	Practices that have a well-defined logic model or theory of action, and are supported by research (correlational or qualitative).			

As Table 2 suggests, the ESSA levels of evidence reflect the research types outlined in the "Common Guidelines"; both of these federal documents have informed the development and conduct of AASL's research agenda. The State Impact Studies have provided considerable evidence that potentially meet Level 3 or Level 4; in its next research phases, AASL researchers will investigate school libraries and learning in the context of Level 1 (Strong) and Level 2 (Moderate) evidence.

Include and Collaborate: A Community of Scholars

The CLASS I forum gave school library researchers with a range of professional roles and affiliations an unprecedented opportunity to form a community of scholars (CoS) to share ideas, make topical connections, and create plans to disseminate their research products through library, educational technology, and educational journals and venues. As part of CLASS I, the AASL executive board established a task force to explore ways to institutionalize the community of scholars and support its continued work. The AASL Educators of School Librarians Section (ESLS) has become the organizational home for this effort and is charged with conducting a pre-conference workshop and a concurrent research session at AASL annual conferences. Following the successful 2014 CLASS I national forum, AASL sponsored another CoS gathering in Spring 2016 in Washington, DC.



While the AASL executive and ESLS worked to build the CoS, AASL submitted to IMLS CLASS II, a project that further develops and operationalizes the CLASS I research agenda previously shown in Figure 1 (AASL 2014). Figure 2 illustrates the initial phase of the decade-long agenda—the phase that researchers are undertaking in CLASS II.

As Figure 2 suggests, the goal of the CLASS II research project is twofold: to identify promising practices from causal research relating to educators' work and learners' outcomes and to test several of the identified practices in authentic school environments with school librarians. This research phase is not designed to identify causal links between what school librarians do and what learners gain, but this phase will identify promising practices that can be explored in greater depth in the subsequent research phases shown in

Figure 1.

Curate: Reviewing Published Research

In January 2016, three teams of researchers from Florida State University, Old Dominion University, and the University of North Texas commenced work on the phase illustrated in Figure 2. The researchers explored published, peer-reviewed causal studies of school-based factors that affected learner outcomes. Each team took a somewhat different approach, as Table 3 shows.

Table 3. CLASS II Research Team Approaches				
Team	Source(s) Reviewed	Review Approach		
Florida State University (FSU)	What Works Clearinghouse (WWC)	Reviewed all causal studies that reported significant positive findings		
Old Dominion University (ODU)	Scopus, EBSCO, J-STOR databases Visible Learning: A Synthesis of Over 800 Meta-	Searched "caus* AND learn* AND outcome*"		
University of North	Analyses Relating to Achievement (Hattie 2008) Scopus	Reviewed all studies Searched "librar*" AND "caus* AND (school* OR learn*) AND achiev*;		
Texas (UNT)		Reviewed all studies		

As Table 3 indicates, FSU researchers examined the U.S. Department of Education's Institute of Education Sciences' What Works Clearinghouse (WWC, https://ies.ed.gov/ncee/wwc/ (https://ies.ed.gov/ncee/wwc/)) in depth. The WWC reviews causal evidence of effectiveness of programs, policies, or practices by using a consistent and transparent set of standards. Because the WWC does not rank, evaluate, or endorse interventions, FSU researchers identified and excluded studies without significant findings from their subsequent analyses. The ODU research team focused their search on the Scopus, EBSCO, and J-STOR databases as well as the on the studies referenced in John Hattie's book *Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement* (2008). In this book, Hattie provides results of his meta-analyses of fifteen years of studies relating to influences on academic achievement. The UNT team focused on the Scopus database and literature from library and information studies.

Each team then aggregated the studies into one unified list. In total, the researchers examined over four hundred studies for promising practices that had a effect on student learning. These practices were classified into topic areas that included:

- Assessment
- Classroom Practices
- Collaboration
- Discipline
- District/State Characteristics
- Early Childhood
- Group & Peer Learning
- Leadership
- Library & Librarian
- Parent Involvement
- Professional Development
- School Characteristics

- Teacher Characteristics
- Tutoring
- Technology

Next, the researchers synthesized the study results. At this current phase, the researchers are working together to do two things:

- 1. Classify each study according to its ESSA level of evidence, as listed in Table 2.
- 2. Create lists of promising practices within each domain.

With this stage, the researchers are returning to Hartzell's point that school library and educational research must be contextualized. The outcome of this phase will be lists of proven practices that have the potential to inform theories about how school librarians might impact student learning. For example, in a study in the Classroom Practices domain, Arnold, et al. concluded that children best learned mathematics in a developmental progression (2002) and Klein, et al. reported that helping children understand their mathematical prior knowledge was effective in their attainment of new knowledge (2008). Several other studies affirmed mathematics learning approaches that were centered on teaching learners progressively and with anchors in prior knowledge. Because the new NSLS shared foundation Explore states that "School librarians stimulate learners to construct new knowledge by teaching problem-solving through cycles of design, implementation, and reflection" (AASL 2017, 104), a testable hypothesis might be "What is the impact of a school librarian who collaborates with classroom teachers to teach problem-solving strategies?"

Though the researchers are still refining their work, their initial list of practices that benefit learners includes:

- Direct, explicit, and systematic instruction on new material blended with strategically timed small group reinforcement activities.
- Hands-on experiences that connect learning with real-world or familiar content and experiences.
- Contextual instruction in questioning, problem-solving strategies, and other metacognitive skills.
- Formative, corrective feedback, including quizzes, that promotes and reinforces learning.
- Exposure to vocabulary through reading and listening as well as explicit vocabulary instruction and acquisition strategies.
- Frequent instruction, which is more important than lengthy instruction.
- Intervention and teaching personalized to meet individual needs.
- Modifying the learning environment to decrease problem behavior.
- Visual representations.
- Intensive and individualized interventions for struggling learners.

Though the researchers continue to refine this list, these classroom practices were the basis for the next step of the research: testing these findings with a school librarian in a school library context.

Explore: Investigating Promising Practices through Field Studies

In spring 2017, AASL issued a call for proposals for school librarian/researcher teams to conduct causal field studies. Each of the three awarded studies will provide insight into the extent to which promising classroom practices translate to effective school librarian practices. This probe will provide direction for establishing the school librarian best practices inventory required for the next phase of the CLASS causal research agenda. Look for field study results to be published in late 2018.

Engage: Next Steps for the Community

In the next year, as the teams continue their research and disseminate findings from the synthesis and from

the field studies, they will build theory and surface possible factors to be tested in later phases of the AASL research agenda. The NSLS not only provides frameworks, shared foundations, and key commitments to inspire and lead the field forward, it inspires validation through research. As practitioners, school library educators, and school librarians begin to unpack these new standards, more areas of inquiry are likely to emerge. The field needs all kinds of research from its community of scholars and practitioners. As Hartzell reminds us, we should also look outside ourselves to areas identified in the educational research where school librarians make a likely difference. CLASS II is interested in exactly this convergence of educational best practice with school library practice.

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