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From AASL Standards to the ACRL Framework: Higher Education Shifts in Pedagogical Strategies

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In Brief

How does the Framework for Information Literacy for Higher Education function in relation to the information literacy standards used with students in K-12 schools and how does it inform academic librarians' pedagogical strategies? While these documents are strongly related, there are large differences in their theoretical approach to information literacy, which are revealed in their definitions, treatment of dispositions, and approach to measurement. This leaves gaps in instructional approaches and student learning. Understanding these differences enables librarians in higher education to leverage the Framework to teach all students and fill in instructional gaps, regardless of how much information literacy instruction they have received in the past.

Introduction

I became an academic librarian in August 2016, shortly after the ACRL formally adopted the Framework for Information Literacy for Higher Education. The Framework is a fundamentally different document than the AASL Standards for 21st Century Learners, the standards from which I worked as library media specialist in a college preparatory high school. While the student population in that high school was fairly homogeneous (racially, socio-economically, etc), the students in my college classes were from all over the world, had any background imaginable, and were at different skill levels. They had unique K-12 experiences and vastly varying degrees of information literacy instruction prior to coming to campus. I needed to work effectively with the Framework in planning lessons and assessing student learning to properly support all of these students. To better understand a new guiding document, I did close readings, comparing and contrasting the two documents, and delved into articles discussing their usage and teaching philosophy; however, I found no literature on how the two functioned together. In this paper, I use the final draft of The Framework for Information Literacy in Higher Education (2015) and the current 2009 version of the AASL Standards for 21st Century Learners and examine them independently from how they are utilized in classrooms. I set out to compare and contrast the theory behind each of the documents, AASL relying on behaviorist theory and the Framework relying on critical librarianship and social constructivism. These theories speak very different ideas about how students learn about information, creates learning gaps, and effects our pedagogy practices in the classroom.

Theoretical Approaches

Each document presents a set of beliefs and a definition of information literacy that provides groundwork for the formation of their objectives (the Standards for AASL and the Knowledge Practices for ACRL). The AASL Standards' Common Beliefs are a series of statements placed in the beginning of the document without any introduction as to their meaning or purpose. I am writing with the assumption that these present an underlying philosophy for the standards. The Common Beliefs include statements like "ethical behavior in the use of information must be taught," "school libraries are essential to the development of learning skills," and "technology skills are crucial for future employment needs" (AASL, 2009, pg. 2-3). The AASL Standards' definition of information literacy, placed within the Common Beliefs and further explained directly after, states that "Information literacy has progressed from the simple definition of using reference resources to find information. Multiple literacies, including digital, visual, textual, and technological, have now joined information literacy as crucial skills for this century." Each of the Standards begin with "Learners use skills, resources, and tools to: [action word here]" (AASL, 2009, pg. 3).

This definition and standard set is skills focused, emphasizing the use of tools and technological skills to find information. This approach, like the older ACRL Standards, views information as "a commodity external to the learner, which can be sought out, possessed, and used" and portrays the students as individuals who acquire information skills through practice (Foasberg, 2015, pg. 702). These foundational principles are much more reflective of behaviorist theory, a teaching theory that asserts that is "typified by rote learning, drill-and-practice" and "manifests itself through changed behaviours such as the acquisition of new practical abilities" (Elliot, 2009, pg. 1). This approach typically views the instructor as the ultimate authority within the classroom and that teaching and learning is sequential. What this means in information literacy is that if a student acquires the skills to access information through a variety of avenues, in a particular order, then they will have achieved information literacy. Behaviorist focus on sequence is seen through the Standards' structure. They approach each measure in a highly structured, nested fashion that provides a clear order in which students are to approach research and information. Standard 1.1.1 states students should "follow an inquiry-based process in seeking knowledge in curricular subjects, and make the real-world connection for using this process in own life" (AASL, 2009, p. 3). The rest of the standards in section 1 then present an ordered, linear list of actions students are to take for this "inquiry-based process."

The Standards for the 21st-Century Learner in Action defines dispositions as "learning behaviors, attitudes, and habits of mind that transform a learner from one who is able to learn to one who actually does learn", states that they can be taught through assignment structure (i.e., building in activities that require persistence), and "can be assessed through documentation that proves the student has followed the behavior during the learning process" (2009, p. 8). This is reiterated in the Standards document itself which defines dispositions as "ongoing beliefs and attitudes that guide thinking and intellectual behavior that can be measured through actions taken" (AASL, 2009, pg. 8). But does a student's action and behavior truly reflect an inward attitude? While the actions prescribed in the AASL Standards should not

be ignored or undervalued, it is problematic to assume that an attitude can be measured through action or that learning can only occur with the “right” attitude. Many students learn to simply act the way they think they are supposed to act (I was one of these students!). The Standards also have a tendency to hide additional physical, observable skills within the Dispositions sections, further confusing inward attitudes and outward behavior.

While the AASL Standards mention social context, working together, and thinking skills that launch independent learning, they do not place a lot of focus on student reflection. The Framework’s beliefs explicitly address both the faculty and student roles and responsibilities, reflecting on their own behaviors and actions with the academic community, and how information functions in a cultural landscape. Each of the frames within the Framework provides a concise statement and provides a list that begins with “Learners who are developing their information literate abilities [action word here]” (AASL, 2009, pg. 3). The Standards focus on the student using a tool or someone else’s expertise to complete their tasks; the Framework places the focus on what the student is doing and thinking. The difference is subtle and simple, but significant.

The Framework defines information literacy as a social practice, emphasizing “dynamism, flexibility, individual growth, and community learning.” It reaches beyond skills in locating information and addresses how information is created, how the students use the information to create their own knowledge, and students’ responsibilities to participate in the learning community. This is strongly reflective of critical librarianship and social constructivist pedagogy, a theory that emphasizes how a student’s language and culture, as well as context (of the information and the student’s role in society) affects learning. Critical Librarianship is the “inflection of critical theory in library and information science” (Garcia, 2015, par. 6) and has been defined as “a movement of library workers dedicated to bringing social justice principles into our work in libraries” (Critlib, n.d., par. 1). It states that “critical self-reflection is crucial in becoming more self-directed in the rapidly changing ecosystem.” Critical self-reflection depends heavily on student engagement and requires librarians to create lessons that focus more on the nature of information as opposed to lessons that focus on extracting information (articles and resources) from a system. The Frames, or threshold concepts (ideas that enlarge ways of thinking) are arranged in alphabetical order, providing no sequence and implying that each concept is equal in importance. While some order of research process is provided within the Research as Inquiry and Searching as Strategic Exploration frames, there are major language differences. Instead of emphasizing order (there are no numbers in the Frames’ lists), the Framework breaks down cognitive skills that are at play in searching:

| | |
|----------------------------------|--|
| Standards: Standard 1.1.8 | Framework: Searching as Strategic Exploration |
|----------------------------------|--|

“Learners demonstrate mastery of tech tools for accessing information and pursuing inquiry.”

“Match information needs and strategies to appropriate search tools.”
“Design and refine needs and search strategies as necessary, based on search results.”
“Understand how information systems (i.e. collections of recorded information) are organized in order to access relevant information.”
“Use different types of searching language (e.g., controlled vocabulary, keywords, and natural language) appropriately.”

Staying true to its focus on self-reflection, The framework defines dispositions quite differently than the Standards. Dispositions are a “tendency to act or think in a particular way. More specifically, a disposition is a cluster of preferences, attitudes, and intentions, as well as a set of capabilities that allow the preferences to become realized in a particular way” (Salomon, 1994). The Framework views dispositions as a dimension of learning, implying that the student’s attitudes and values are present and active at all times (ACRL, 2015, pg. 2). Because the Framework acknowledges that these attitudes are ongoing, the dispositions set forth are to be born out of, or at the very least, influenced by, the knowledge practices. They are not meant to be a set of measurable outcomes but a set of “good ideas” that instructors are trying to grow within students’ mental landscape during instruction.

Instructional and Learning Gaps

These differences in approach leave gaps within student learning. These gaps include the issue of authority, age-appropriate cognitive awareness, creating personal connections with information, information privilege, awareness of the creation process, and how information is used.

Perhaps the largest gap in focus between the documents is the issue of authority, which is largely absent in the Standards. It is briefly mentioned in Standard 1.1.5: learners “evaluate information found in selected sources on the basis of accuracy, validity, appropriateness for needs, importance, and social and cultural context.” There is no information on how students should determine accuracy or validity, and so it implies that sources should be chosen prior to identifying where authority comes from in their chosen research subject. Because the Standards are largely behavior based, this pedagogical approach relies on the instructor. This is not a comment on the professional knowledge of the instructor but of the tradition of placing authority solely in instructors and in academic resources found through library databases. In addition, this leaves very little room for choosing an informally packaged source, such as social media.

The Framework provides an entire frame on authority, discusses how students will define different types

of authority, and acknowledges that different disciplines have accepted authorities. It highlights how the social nature of the information ecosystem affects where researchers go to discuss findings and connect with each other. The Framework also invites students to consider their own views, giving them authority in the research process as well as those who guide them through it. Teaching concepts of authority could lead students to first identify authority figures prior to beginning research; however, the Framework does not prescribe an order in which research should be approached in this area.

Another gap between these documents is the issue of age appropriate cognitive process. Standard 2 states that “learners use skills, resources, and tools to: draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge.” This standard is all about drawing conclusions and synthesis. This standard is one of the most difficult to address with younger students. Bloom’s Taxonomy, published in 1956 and revised in 2001, is a framework created to classify thinking into six cognitive levels of complexity. This framework begins at a rote level of thinking (remembering) and works its way up through understanding, applying, analyzing, and evaluating, up to the highest level (creating) (Anderson, et al., 2001, p. 31). K-12 pedagogy still relies heavily on Bloom’s Taxonomy, and while most of the Standards focus heavily on the bottom layers of cognition (using tools, retrieving information, following procedures, etc.), Standard 2 primarily focuses on higher levels of cognition. While this provides one of the best parallels between the Standards and the Framework, and is one of the best transitions between high school and college level thinking, this standard can be challenging when working with younger students. Because the Standards are meant to be applied to a 13 year span of students, librarians must be fully aware of child and adolescent development at multiple stages and be able to apply it with full flexibility—something not expected of classroom teachers. Unless a school librarian has a full pedagogical background in K-12, this can be very difficult.

To make personal connections and organize knowledge in useful ways, students must confront their own thoughts and ideas about how they will use their resources. This reinforces the idea that authority does not lie within information itself but also within those who created it and how they fit into scholarship. This also means that individuals must make decisions about what types of information they are receiving and how to deal with it. The Information Has Value frame calls students to recognize issues of access and their own information privilege, something that is felt long before college (ACRL, 2015, pg. 6). The Common Beliefs of the Standards state that “all children deserve equitable access to books and reading, to information, and to information technology in an environment that is safe and conducive to learning,” but this statement is only presented to the professional and does not directly appear in the standards list. The Framework takes this further, stating that the professional must “acknowledge biases that privilege some sources of author over others, especially in terms of others’ worldviews, gender, sexual orientation, and cultural orientations” (ACRL, 2015, pg. 4). This is supporting in targeted objectives by saying learners “understand how and why some individual or groups of individuals may be underrepresented or systematically marginalized within the systems that produce and disseminate information” and that students should “develop awareness of the importance of assessing content...with a self-awareness of their own biases” and “examine their own information privilege” (ACRL, 2015, pg. 6). While these discussions may be happening in K-12 schools, there is no expectation of it as it is absent from the actual set of standards. This is a large step away from a behaviorist approach

and toward critical library pedagogy. In thinking about what voices may or may not be represented and the ability (or lack of ability) of some groups to access information, students can begin to understand that they are only finding information that represents certain ideas. This could encourage them to dig deeper when researching and find alternative points of view. Middle and high school students not only deal with academic literature but must deal with the high influence of social media and need to be able to recognize any manipulation that may be occurring in information they encounter outside the classroom.

For students to understand how information can be manipulative, they must understand the nature of how different resources are created and for what purpose. The Framework specifically addresses information creation. It says that learners must “articulate the traditional and emerging processes of information creation and dissemination in a particular discipline” and “recognize that information may be perceived differently based on the format in which it is packaged” (ACRL, 2015, pg. 5). Students are often told that they cannot use resources on the internet or that they can only use resources found through the library’s database and rely on a “model of information literacy instruction which universally praises scholarly research and devalues alternative venues of information dissemination” (Seeber, 2015, pg. 162). This is often for the sake of guiding the students toward only information that is accurate and reliable, however, students must resist this assumption. Library databases (K-12 database packages included) access information that comes from news sources, websites, non-peer reviewed journals, and portions of peer-reviewed journals that are not refereed. The Standards state that students should “make sense of information gathered from diverse sources” but the Framework explicitly points to the information creation process as a guide for students to determine accuracy, not where it appears (AASL, 2009, pg. 3). In terms of learning, students are at a distinct advantage if they know, explicitly, that “information is made in different ways, valued for different reasons, and used to achieve different ends” (Seeber, 2015, p. 161). Identifying how a resource was created lets them more readily see bias, holes in arguments, and author agendas over those who rely on prescribed sources. This also means that students can then more easily justify using resources they have found on social media if they can determine that the author and process of creation was accurate. It shifts the authority of the information away from its packaging and onto the actual process of creation.

Closely akin to how information is created is how information is used. Most teenagers have social media accounts and are actively sharing information (personal or otherwise) on these platforms. Information Has Value directs students to “understand how the commodification of their personal information and online interactions affects the information they receive and the information they produce or disseminate online,” an issue wholly absent from the Standards. Research has demonstrated how impactful our emotions can be on social media. A 2014 study detailed how Facebook’s control of the emotional nature of a person’s newsfeed impacted their interaction with the media platform and how this control affected the tone of the information that the individual would share (Kramer, Guillory, & Hancock). This and similar research (Detecting emotional contagion in massive social networks by Coviello et al., 2014, and Measuring emotional contagion in social media by Ferrara & Yang,) shows the large-scale impact that social media can have on people, particularly young individuals. The impact of this type of manipulation may be tempered by a systematic, curricular awareness through information

literacy standards.

Effects on Pedagogy

Skills-focused teaching is the simplest way to create lessons from the Standards since they provide point-by-point, measurable actions. This style of teaching relies heavily on database demonstrations, point-and-click skills practice, checklist-style website tests, and worksheets. While some activities can be built to push students to think critically, most of the standards point to abilities and dispositions that are visible. Assessments in skills-focused lessons often focus on if the student was able to find a source for a paper or project that the instructor or librarian deems “reliable,” or if the student was able to cite the source correctly. The end result is king; anything else is rarely assessed, even the steps in the middle. If those steps are assessed, it is typically in the fashion of a yes-or-no formula of the students performing particular actions and in the “right” order.

The following is an example of a skills-focused activity that was embedded into a 65 minute workshop I created in the fall of 2014 for a middle school Social Studies class:

- Lecture & Activity:
- Go through the research process using the 7 (altered) steps of research ((identify your topic, create a keyword list, find background info, find resources (websites) on your topic, evaluate your findings, publish your project, cite your resources)
- After an explanation of each step, the students will do an activity to respond to, thus completing that step of their project. These include a keyword building activity, locating an encyclopedia article, finding websites and applying a checklist-style evaluation, recording information about the site and how they will use it, and finally, creating citations for any resources they plan to use.

This workshop was built on a scaffolding method referred to as the “I Do, We Do, You Do” method. The idea is that students see a concept first, then practice it with guidance, and finally do it on their own. I embedded this method into each step with the exception of publishing. This method is useful for all age levels, but especially for a class of 6th grade students who are, developmentally, operating heavily in the stages 2 and 3 of Bloom’s Taxonomy, a framework published in 1956 and revised in 2001. This framework begins at a rote level of thinking (remembering) and works its way up through understanding, applying, analyzing, and evaluating, to the highest level (creating) (Anderson, et al., 2001, p. 31). There are some higher-level elements, but the lesson relies heavily on observable actions and the hands-on skills that students need to practice. As a high school librarian, I struggled with providing enough higher level activities for my students while still following the behaviorist standards. I often had discreetly file lesson plans that did not actually follow the true activities that I was utilizing in the classroom.

Some high school students receive basic instruction in database use only or no information literacy

instruction at all. According to a 2013 study done by the National Center for Education Statistics, only around 62% of reporting traditional public schools and 16% of reporting charter schools in the United States employed a full-time, paid, state-certified library media specialist (Bitterman, Gray, & Goldring, 2013, pg. 3). We do not know if these professional are providing information literacy instruction according to the AASL Standards. This creates a necessity for higher education librarians to teach information literacy “from scratch.” While academic librarians cannot change gaps in the Standards or the fact that many of our students have never met with a librarian in a classroom setting, we can build a bridge between skills-focused instruction and student-centered activities to meet the needs of young adults and adults, particularly in their first year.

The use of a First Year or Foundational Experiences program is an example of how some universities support the transition between high school and college information literacy. These programs typically focus on students who are transitioning from high schools and community colleges and those who are first generation students in their families. Another method of supporting this transition is through programmatic assessments of basic information skills. These assessments provide insight to the librarians and faculty about the nature and level of student information literacy. The Framework calls librarians to a greater responsibility in “identifying core ideas within their own knowledge domain” and “collaborating more extensively with faculty” (ACRL, 2015, pg. 2). Moving away from the traditional point-of-service for First Year classes and toward a programmatic approach not only increases collaboration with subject faculty, but also ensures better library exposure to students who may not be inclined to walk through the doors which may result in greater library use through their college years.

Because of the swiftly changing nature of information and how we interact with it, academic librarians have a greater responsibility to teach skills that can be applied outside the institutional walls, particularly with regard to issues of information creation, access, and motives within the publishing process. While it is safe to assume that incoming students know how to perform basic searches using internet search engines, they may not be able to know what to do with that information or distinguish the differences between scholarly and popular materials. The Framework, being supported by social constructivist ideas, moves beyond skills-based instruction requires us to ask students to think critically, to utilize their own experiences, and to use resources that could have been previously prohibited, such as social media.

To include more hands-on, directly applicable activities, and incorporate more critical information literacy theory into my lesson plans demanded that I refocus lessons on the “why” instead of the “what.” This effectively shifted my role from “expert” to “guide.” This is supported by andragogy, one of the most well-known adult learning theories. Andragogy, or the methods and principles of adult learning, leans on the principles that adult learners are self-directed and responsible for learning, work best under problem solving and hands-on practice, and seek information that has direct application to their immediate situations (Knowles, 1980, p. 44). The Research Process was a very common request for lesson topics in my university teaching. Below is how I restructured the K-12 Research Process activity to focus on the Framework:

- Activity: Students are given 2 popular articles and 2 scholarly articles. They are tasked with creating two short lists of common features for each of the categories. Each group has a student come up to the board and records their list (the result will be a large list for each category).
- Discussion: Librarian calls the class together to discuss the lists. Questions could include:
 - Who write scholarly articles? Popular articles?
 - What kind of credentials (degrees, jobs, etc.) do they have to have to write these?
 - Who do they write for? Why do they write these?
 - How long does it take for a scholarly article to be written? A popular article?
- Short video on peer-review process (creation, purpose, etc.)
 - Librarian draws a timeline on the board for the peer-review process
 - Discussion: Let's talk about the timeline for peer-review articles.
 - What is peer-review? Who are the author's peers?
 - What are reviewers looking for when they read an article?
 - How long does this process take?
 - How might a peer-review article from one discipline look different from another discipline?
 - Add to the timeline by including popular articles, books, and other types of resources
 - How does the length of time each resources takes to create affect how you use it for your paper/project?
- Demo of main database search tool:
 - Using one of the student's topics, demonstrate the usage of the library's discovery tool, its filters, and its citation tool, pointing out the difference in search terms with the database vs Google. This should only take 5-10 minutes.
- Student searching:
 - Students are directed to search either the main database tool or the internet (or both) for a source they may want to use.
 - Remind them to think about HOW the information was created, WHO created it, and WHY when determining if they will use the source

This activity takes students through the principles of information creation and forces them to consider how the information fits into the cultural landscape of higher education and society, leveraging the highest level of Bloom's Taxonomy at almost every step. One of the ending measurements is the same as my original K-12 lesson (a useful source for their project), but the cognitive demands and understanding of information are vastly different. Instead of being told to simply evaluate information for accuracy, students must consider the context in which the writer's authority resides. From this, students can then reason why different points of view (academic and non-academic) matter in research. If students do not understand the nature of authority and focus on the skills of retrieval only, they run the risk of devaluing a professional's knowledge simply because they do not work in an academic field or because the information is coming from a website. While I do recognize that this lesson is built for college students, this is not beyond the cognitive levels of high school students.

Structurally, the Framework alleviates obstacles in lesson planning in terms of targeting specific

objectives. For example, Standard 3.2.3 states that a student should “demonstrate teamwork by working productively with others” (AASL, 2009, pg. 5). While working productively with others is a good social skill, it has no specific placement in information literacy without bringing in at least one other Standard for context. The Framework, focused on principles, reworks the idea of cooperation into students seeing themselves as “contributors to the information marketplace/scholarship rather than only consumers of it” (ACRL, 2015, pg. 8). This can be a teachable objective on its own without having to be paired with another standard or objective. The practices and dispositions with the Framework can be utilized and targeted alone and can be taught within the context of school or outside of it. The Framework “contains ideas that are relevant for anyone interacting with information in a contemporary society” (Seeber, 2015, pg. 159). Moving from a statement of action (behaviorist) to a statement of metacognition (constructivist) moves the standards out of isolation and into a larger context. It allows me to take a frame as a whole or a particular Knowledge Practice and embed it into a course assignment because I am not teaching a discipline—I am teaching ideas that nest within any circumstance, both academically and personally. This results in net gains for our students, empowering them in their research, in their interactions on social networks, and in their encounters with media.

While the Framework does not provide point-by-point measurable activities, it does not run counter to measurable assessments, and it can be situated into any library’s missions and goals and lends itself to working with inclusive populations. It allows for one lesson to be applied to multiple classes regardless of the students that make up that particular class, that particular day. Support level can be changed, students can “drive” more or less, activities and tools can be exchanged, all while teaching to the same frame. Because the Framework addresses almost every single area of the Standards (the exception is some of the standards pertaining to personal growth), even students who have never had information literacy instruction during K-12 aren’t “behind” students who have. All students benefit from thinking about why and how they, and others, make information choices.

Discussion

While the observable, measurable skills in the AASL Standards are positive skills to have, being based on behaviorist-style (lecture, point-and-click demonstrations, and students’ abilities to simply find information) does not prepare students properly for modern university level instruction. In truth, when taken alone, the AASL Standards lean on behaviorist theory, therefore encouraging more lecture-style, point-and-click demonstrations, and students’ abilities to simply find information.

By drawing on social constructivist and critical librarian pedagogy, the Framework for Information Literacy for Higher Education encourages student self-reflection and examining how information functions in a **greater** context beyond an assignment. It pushes librarians to create learner-centered and authentic activities through which finding information becomes a cognitive process, not just a physical one. By being more aware of how information is used socially, politically, and culturally, students are empowered to understand how articles are created, how to evaluate arguments, and how to apply new knowledge to their own scholarly work. Skills like these are vital in our everyday, technology-driven,

socially connected world.

Examining these documents and their theories brings to light a number of issues that I simply cannot address in one paper: 9-12 students could benefit from having a separate higher-level set of Standards; how the American Association of School Libraries and the Association of College & Research Libraries are failing to work together to create cohesive standards; how much pressure is being put on K-12 librarians to have a more thorough knowledge of child and adolescent development than classroom teachers; how high school students should also receive the benefit of being taught in a constructivist manner through the lens of social equality; etc. While these issues that have been brought to the surface through this process, we can and should be taking immediate steps in our pedagogy practices to help alleviate that the strain in K-12 to college transition in our students. By understanding how our students have been taught, we can build on this to create lessons that take information literacy further.

How these two documents function together will change soon. AASL is currently in the process of revising the Standards for the 21st Century Learner. The new Standards are forecasted to be launched in the fall of 2017. I am very interested to see the changes and how they might affect our K-12 colleagues and their students and, a few years down the line, academic librarians who work with these same students in higher learning.

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