Dust off Those Encyclopedias: Using Reference Sources to Teach the ACRL Framework Concepts¹

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Abstract

What if the ideal tools for teaching undergraduate students the most critical information literacy concepts have been sitting in the stacks all along collecting dust? Reference sources are an optimal medium to introduce all six of the Association of College & Research Libraries’ (ACRL) Framework’s central concepts for information literacy. Additionally, by understanding a reference source’s place in the information search process, students learn to consciously avoid the common pitfall of neglecting exploratory research before specifying research inquiries. Thus, incorporating reference sources thoughtfully into instructional design contributes to the development of both information literacy and metacognition.
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**Introduction**

What constitutes a reference source? Is it the exquisite craftsmanship of a beautifully bound leather tome of old? Is it a prolonged foray of page after page filled with cryptic abbreviations and esoteric clues leading a researcher to the promised treasure trove of knowledge? Is it a loose compendium of facts strung together by the collaborative effort of many generations of information seekers, past and present?

While reference sources may have shades of all of these within them, or none at all, the most crucial aspect of what constitutes a reference source is not how it looks, feels, or even what it contains, but what the intended purpose is for its creation and publication. This underlying purpose is the impetus behind choosing reference sources for their ability to effectively introduce students to the threshold concepts of information literacy as outlined within the Association of College and Research Libraries’ (ACRL) *Framework for Information Literacy for Higher Education* and for fostering metacognition within students as they enter their communities of scholarly discourse.

**Reference Sources and Metacognition**

The Oxford English Dictionary (OED) defines a “reference work” as “a source of factual information (originally a printed work, but now also an electronic resource) intended for research or consultation on individual matters rather than continuous
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reading” (Reference work, 2009). This definition is then further substantiated by excerpts from various journals and serial publications from three different time periods including published articles from 1839, 1927, and 2007 (Reference work, 2009). While librarians and other scholars may be well versed in this definition of a reference work, undergraduate students may not be familiar with this definition nor with examples of what reference works or sources are. Consequentially, this brief definition contains several notions that students would benefit from fully understanding.

The distinction that reference sources are composed of factual information can assist students new to collegiate level research in acquiring the foundational knowledge necessary to develop specific topics of inquiry while building upon the foundational knowledge gained within their classes from their professors, required textbooks, and other assigned readings within the broader scope of the course objectives. The parenthetical notation within the OED definition referring to the format of reference sources as occurring in both “electronic” and “printed” formats can help students recognize and accurately identify the reference sources that they may encounter in their daily online browsing paths (Reference work, 2009). Additionally, acquiring an awareness of print reference sources sitting within academic library collections and a comprehension that not all information is available via digital means may motivate students to critically assess what their research needs really are, and to deliberately derive their sources from a multitude of venues. The intention of a reference source to be used for research is clearly articulated within the OED definition. In learning that an entire type of source exists for the intention of research, undergraduate students would be remiss to then consummately and apathetically ignore the value in such academic tools.
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Furthermore, upon discovering that reference sources are not for “continuous” reading, some common misconceptions undergraduate students may carry about consulting such a work can be quelled, thus effectively removing a barrier that may impede a more prevalent usage of these sources within the current climate of higher education.

By understanding this defined nature and intention of reference sources, metacognition can be fostered and hopefully accompanied by diminished anxiety as students work their way through the information search process. Carol Kuhlthau developed a model that defines stages of the information search process, with each stage characterized by the key action that the information seeker undergoes before progressing to the next (1993). The information search process is comprised of six distinct stages, the earlier three stages of initiation, selection, and exploration supporting the three more advanced stages of formulation, collection, and presentation (Kuhlthau, 1993). According to Kuhlthau’s theorization of affective influences dominant during each stage of the process, “…an individual is actively involved in his or her progression from uncertainty to understanding” as they move from the earlier stages into the latter stages (1993, p. 342). At what point in the information search process then would reference sources play the most pivotal role?

Reference sources are a key component in academic research for topic exploration. Thus, when students do not provide themselves with the opportunity to conduct the exploratory research during the third stage of exploration, there is an inability to establish a factual construct from which research inquiries could be effectively honed in the formulation stage. Lacking the ability to specify a research inquiry adequately results in the tendency to grasp at any sources that seem even tangentially related to the
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The topic of study during the collection stage. The end result produced during the presentation stage would then contain quotes and citations that were awkwardly squeezed into inappropriate places to establish a façade of proper source usage. This anxiety-riddled and unrewarding method that many undergraduate students are currently employing to conduct research may be thwarted by introducing and emphasizing the use of reference sources during the exploration stage of the information search process.

Proper usage of reference sources would, contrarily, facilitate an appropriately specified research inquiry and a more purposeful accumulation of relevant sources. According to Kuhlthau, “[p]articularly after focus formulation they become more competent at selecting pertinent information, developing more specific searches, and becoming more critical of the found information” (Kuhlthau, 2008, p. 4). The development of personal perspectives and individual analyses germane to the research inquiry within the final product, whether it is a paper or other project, would flow coherently through from the proceeding phases to the scholars that will eventually consume this newly created information. While the intrinsic motivation that cultivates the desire to use reference sources at the appropriate points of the research process may not exist in all students, the extrinsic motivation of experiencing less stress during and at the end of the process may prove a persuasive enough motivator for an attempt to be made by more reluctant students.

Within the collective roles fulfilled throughout higher education, this crucial responsibility to advocate for the use of reference sources within students’ research processes falls primarily upon academic librarians. Since often emphasis is placed upon the final research product not indicating the use of reference sources, academic librarians
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must convey the importance of these resources both for utilization in conjunction with the course curricula and for their selection, acquisition, and maintenance within our collections.

Threshold Concepts in Information Literacy Education

During the last several decades, a theoretical shift within education has occurred where content-focused curriculum has been subsumed by learner-centered pedagogy. Once facet of this transition is the acknowledgement of threshold concepts within various academic disciplines. A threshold concept has been described as representing, “a transformed way of understanding…without which the learner cannot progress” (Meyer & Land, 2003). This acceptance of threshold concepts into instructional design has influenced educators to attend to where learners are at when encountering major ideological constructs and to acquiesce that all learners will not be in the same cognitive place, may not progress in the same manner, and may never achieve the same depth of comprehension provided with similar educational circumstances, resources, and learning activities whence encountering these constructs. Information literacy education has correspondingly, and expectedly, shifted as exemplified through the ACRL rescinding the Information Literacy Competency Standards for Higher Education, the standards that guided the basis of academic librarians’ instructional practices for over fifteen years, and establishing the Framework for Information Literacy for Higher Education (Association of College & Research Libraries, n.d.).

The ACRL’s Framework for Information Literacy for Higher Education is comprised of six frames, or threshold concepts, that facilitate information literacy once a
comprehension is achieved by student learners (Association of College & Research Libraries, 2015a). The nomenclature of “framework” was purposefully chosen “because it [the framework] is based on a cluster of interconnected core concepts, within flexible options for implementation” and centers around “conceptual understandings that organize many other concepts and ideas about information, research, and scholarship into a coherent whole” (Association of College & Research Libraries, 2015a). Each frame also has a set of accompanying knowledge practices that can be used to assess learning and dispositions that reflect an incorporation into a learner’s worldview or perspective (Association of College & Research Libraries, 2015b). There are no frames that function as prerequisites to others, nor is there a prescribed sequential progression for students (Association of College & Research Libraries, 2015a). Rather, each of the six frames can be perceived as threshold concepts within their own right and the interconnectedness of the concepts can be leveraged to transition from introducing one concept to introducing another. The six frames, in alphabetical order, are as follows: “Authority is Constructed and Contextual”, “Information Creation as a Process”, “Information Has Value”, “Research as Inquiry”, “Scholarship as Conversation”, and “Searching as Strategic Exploration” (Association of College & Research Libraries, 2015b). References sources can be used as teaching tools to introduce each one of these six frames to undergraduate students while also fostering metacognition as students move through the information search process.
Academic librarians tend to teach within instructional scenarios where students have already been assigned a research paper or project and may have already selected a broad topic to research. The threshold concept underlying the frame “Searching as Strategic Exploration” is integral for intellectual discovery prompting a specification of the research inquiry, that optimistically also pertains to an academic or personal interest of the student (Association of College & Research Libraries, 2015b). For example, in an American history class that covers the time period from the pre-colonial era through the post-Civil War era, the lectures, readings, and learning activities of the class may have instilled a genuine interest in various topics such as naval expeditions, regional folklore, or the persecution of witchcraft. By guiding students in this class to utilize a reference source such as the Dictionary of American History, the students can encounter and read brief factual entries about these subtopics learning enough to determine whether a research inquiry is worthy of further exploration (Kutler, 2003). This deliberate use of a reference source teaches that searching for information is both a strategic and exploratory process. Choosing the Dictionary of American History from a deep range of reference titles proves to be a strategic selection due to the source’s scope in covering American history that correlates to the course content (Kutler, 2003). Additionally, the nature of this source as a reference source, and therefore its intended purpose for research use, allows students the explore a multitude of subtopics of interest.

Once an undergraduate student specifies the topic of research using the knowledge gained from reading entries within a reference source, the next often assessed expectation within the project may be to construct a thesis statement. From reading an
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entry related to a specified topic within a reference source, a student can then gauge the
who, what, where, when, how, and why questions that were answered within the source
to begin to infer that a thesis statement and a research question are different means
essentially expressing the same idea. By conducting this appraisal regarding whether
particular questions were answered and whether there exists an agreement with the
answers as presented, the main concept within the “Research as Inquiry” frame is
effectively introduced (Association of College & Research Libraries, 2015b). Using the
American history course example, students may reflect upon why witchcraft was
persecuted in early American history and whether or not there exists an agreement with the
reasoning presented. Furthermore, they may use the knowledge gained from reading
this dictionary entry to specify a research inquiry that may be rewritten as a thesis
statement to guide the remainder of their research.

Arguably, reference sources may pose as the ideal teaching tool for introducing
the complicated concepts within the “Authority is Constructed and Contextual” frame
due to dominance of edited and curated works within this source type (Association of
College & Research Libraries, 2015b). By emphasizing that individual authors wrote the
various entries of a reference work, the concept that each of these individual scholars had
to construct their own authority and knowledge may be acknowledged. Indicating that
each author of these individual entries reference others sources used to create them
further substantiates the concept that authority is constructed. When starting to think
about authority and academic expertise as constructed, students can begin to reflect upon
their own path to obtaining expertise and establishing authoritative voices within their
specific disciplines. Analyzing the scope of a reference source can provide students with
the introduction to the notion of authority as contextual. For example, the entry on
witchcraft in the *Dictionary of American History* written by Carol F. Karlsen, Ph.D.
contains, within its reference list, a citation for a book that she has written upon the same
subject of witchcraft in American history (Karlsen, 2003). This juxtaposition between
seeing the same scholar author an entire book upon the subject of witchcraft, and having
but one brief entry included within this large ten-volume reference work elucidates that
authority is contextual. By learning that within the context of the history of witchcraft
Karlsen is a leading scholar, and yet within the expansive breath of American history her
expertise is one voice contributing to the foundational understanding shared for this
broader discipline, an advancement towards comprehension that authority is contextual
can occur.

A discussion surrounding the concept underlying the “Scholarship is
Conversation” frame also flows very logically from dissecting and analyzing the
reference list within a reference source entry (Association of College & Research
Libraries, 2015b). Within our example of the entry on witchcraft, it could be
extrapolated that Karlsen is listening to what the other scholars that she referenced have
said and that her dictionary entry is one of her contributions to the continuing
conversation (Karlsen, 2003). By emphasizing to students using these resources that they
are listening to a conversation which they can contribute to by authoring a research paper
or creating a research project conveying their own perspective, they can feel empowered
to see themselves as scholars entering the scholarly communications of discourse
inherent to their own disciplines of study. Many subject matters covered throughout
reference sources could be culled to illustrate this same concept, such as an entry on
heliocentrism that clearly articulates how scientists through the centuries spoke to each other through their experimental findings or an entry on the various interpretations of the same Shakespearean character as presented within an encyclopedia dedicated solely to his plays.

As undergraduate students are beginning to formulate specific research inquiries, it is an ideal time to teach the notion that the entirety of the research project assigned is completed only by undergoing various stages throughout the process. The threshold concept that “Creation of Information is a Process” can be cultivated by pointing to reference source review as an important initial step before gathering information from the variety of other types of sources used within the scholarly conversation such as journal articles, books, and book chapters (Association of College & Research Libraries, 2015b). This process is similarly undertaken by all scholars and once again exemplifying this to students with a work created utilizing this process, such as Karlsen’s book titled *The Devil in the Shape of a Women: Witchcraft in Colonial New England*, will help some undergraduate students further advance their understanding of this frame (Karlsen, 1987).

The “Information Has Value” frame has many different connotations and interpretations and it would do a disservice to students to only teach about this concept as one dimensional (Association of College & Research Libraries, 2015b). Three prevalent perspectives of this frame include the monetary or fiscal value, the personal value, and the societal value that information can possess. Reference sources can be used as a tool to introduce all three of these prevailing interpretations. Librarians are painfully aware of the notoriously high expense encumbered when providing access to reference sources. However, many undergraduate students do not realize how much it costs their academic
library to either purchase or subscribe to these materials. By informing students that a reference source such as the *Dictionary of American History* costs thousands of dollars, an understanding of the fiscal value of these sources can be appreciated (Kutler, 2003). Often times, broaching this topic of fiscal value with students can lead to critical conversations regarding equity of access and open access initiatives. Additionally, the information contained in a reference source that propelled the student into specifying their research inquiry may comprise personal value tethered to the final research product that emerges from the process and to the grade given for conducting this academic work. The societal value of reference sources cannot be ignored as the provision of factual information that can be obtained rather quickly yields a betterment of societal knowledge as a whole.

**Discussion**

Academic librarians have been incorporating reference sources within their instructional design both before and following the establishment of the ACRL’s *Framework for Information Literacy for Higher Education*. Wallis describes the fabrication of a virtual reference shelf intended to create an environment for browsing digital reference sources and for increasing serendipitous discovery for her students (2014). Additionally, Wallis imbues information literacy instruction with digital reference source use noting specific learning outcomes such as “exploring a topic”, “finding useful resources”, and “evaluating resources” (2014, p. 58). Two of these learning outcomes of topic exploration and identifying relevant resources are related to the “Searching as Strategic Exploration” threshold concept. Accordingly, the learning
outcome of source evaluation is situated primarily within the “Authority in Constructed and Contextual” frame.

Becker discusses the academic stigmatization of the crowdsourced reference database Wikipedia and the need for its integration into “our reference and information literacy instruction” (2015, p. 167). Included in this rationale are several examples of academic librarians who use Wikipedia within their information literacy instruction to achieve the same learning outcomes of topic exploration and resource identification as previously addressed and as related to the “Searching as Strategic Exploration” frame (Becker, 2015). Furthermore, a concerning question is raised as to whether students equate not having instructor permission to cite reference sources with not having permission to consult reference sources at all during any stage of the information search and research processes (Becker, 2015).

Thus, while there is recent discussion in academic librarianship regarding the application of reference sources as teaching tools for intended learning outcomes that are entrenched within the threshold concepts of the framework, the Framework for Information Literacy for Higher Education’s perpetuation as a guiding document is still within its infancy. To substantiate whether using reference sources as teaching tools fulfills effective introduction to, and instruction of, the concepts with the ACRL’s Framework for Information Literacy for Higher Education, additional conversation is warranted within the scholarship of academic librarians that include sharing implementation methods, corresponding assessments, and considerations of factors that typically, or atypically, impede instructional effectiveness.
Conclusion

While it may seem presently passé, or even less important, to incorporate reference sources within information literacy instruction at the level of higher education than compared to generations past, the reality is quite contrary. With the advent of ease to which individuals can create and disseminate information, there is an even greater obligation for people to understand how to find and learn from reference sources that provide factual information. Undergraduate scholars embarking on entering the threshold of their communities of scholarly discourse occupy a crucial window for introducing the ACRL’s *Framework for Information Literacy for Higher Education* concepts to become intellectually mature and information literate. If the integrity of scholarly pursuits within the world of academia is to be maintained, it would prove foolish to neglect the use of reference sources that are created with the intention of research use. Academic librarians are well situated to engage students in using reference sources as tools to strengthen this integrity, encourage metacognition, foster information literacy, and lead young scholars towards immersion within the ongoing scholarly conversations of higher education.
References


