WANDERING INTO THE WILDERNESS: EMBRACING AMBIGUITY IN INFORMATION LITERACY INSTRUCTION

MEGAN ADAMS AND RACHEL FLYNN

INTRODUCTION

Librarians are frequently asked to deliver course-integrated information literacy instruction (IL) to students to support a wide variety of assignments. Despite advances in learner-centered pedagogies in library instruction, the practical demands of doing research often supersede the abstract competencies outlined in documents like the ACRL Framework for Information Literacy in Higher Education. The oft-requested database demonstration, while valuable, elides the “messiness” inherent in doing research. In the “too-tidy” database demo, the librarian models an inauthentic process and reinforces students’ expectations that research is neat and linear. Furthermore, the database demonstration affords students scant opportunities to engage in research or reflect on their development as researchers. As a result, students experience a frustrating contrast between this expected linearity and the ambiguity of their own processes, leaving them without any understanding of the path from novice to expert researcher in the field.

In response, we suggest that centering ambiguity in the teaching of research skills opens points of entry for students with wide-ranging experiences, skills, and expectations. Framing our IL instruction in this manner fosters self-reflection and autonomy in the research process, while also demonstrating the creative, generative possibilities of this sometimes “messy” work. While this approach to modeling research strategies and metacognitive evaluation is potentially relevant to all aspects of IL instruction, for the purposes of this paper, we will discuss its application to the teaching of the ACRL frame: Searching as Strategic Exploration.

LISTENING TO OUR STUDENTS

Inspired by our reading in the field of Scholarship of Teaching and Learning, we will begin by highlighting students’ reflections on their search experiences, as captured in our teaching evaluations from the 2018-2019 academic year. Evaluating responses to the question, “What do you find frustrating when looking for information, whether in the library or not?”, we identified four patterns in students’ feelings towards and expectations of the research process:

Frustration #1: The search box isn’t magic; if I can’t find sources right away, I have failed

In the age of the Google search, students have learned to expect immediate and obvious relevance in our search results; yet, they reported the exact opposite when using academic research tools. For example, one student in an upper-division, 300-level course noted that the most frustrating part is “all the irrelevant info you have to search through to find what you want.” Similarly, a student in a 200-level course reported feeling frustrated, “when what you’re looking for just is not popping up.” Librarians exacerbate this problem when we carefully prepare, rehearse, and model immediately fruitful searches.

Frustration #2: I don’t know enough about my topic to know where to begin

Working from an incomplete understanding of how their topic fits into the larger context of a discipline or area of study, students struggle to define a research scope within the confines of a course assignment. Confronted with an overwhelming number of potential sources, some are unable to determine who they should engage with in scholarly conversation and how their research
Frustration #3: Search isn’t linear

Just like the tidy database demonstration fails to demonstrate to students that relevant sources are not always found on the first try, it also reifies the idea that a skilled researcher finds material through a step-by-step process of predictable, known strategies. This, of course, is not true. Resilience and flexibility are hallmarks of skilled research; when one leverages both qualities, the search results are often better (ACRL, 2015). Students, however, often expect a linear search process. As stated in two responses from first-year students, failing to achieve this linearity is frustrating: “when you cannot find the information you are looking for and have to search it over and over again and word it differently but still don’t find it” as well as “sometimes just all the backtracking.”

Frustration #4: Searching for information sources takes too much time

To manage multiple course assignments, students must locate and use library resources efficiently. The problem is not only that students feel pressed for time, but also that they underestimate the time it takes to develop and refine a search strategy. Moreover, the pressure to find sources and move on heights the frustrations expressed above. Student comments such as “I sometimes have to spend a long period of time looking for information” and “The searching itself. It is time consuming and difficult to find a good source to use” demonstrate this frustration. These feelings are often aggravated by 50-minute, one-shot IL instruction sessions that promise quick, easy results if a student selects the right database and search terms.

FROM NOVICE TO EXPERT

Library and information science literature is replete with discussion of the developmental differences between undergraduate and faculty researchers (Leckie 1996; Cole, Napier, & Marcum 2015; Wood et al. 2016), but we might nevertheless begin by considering the differences in the way novice and expert researchers conceptualize fields and their corresponding bodies of literature. The ACRL definition of “Searching as Strategic Exploration” distinguishes between the knowledge practices and dispositions of novice and expert researchers:

Novice learners may search a limited set of resources, while experts may search more broadly and deeply to determine the most appropriate information within the project scope. Likewise, novice learners tend to use few search strategies, while experts select from various search strategies, depending on the sources, scope, and context of the information need (ACRL, 2015, emphasis added).

While rigid distinctions between “novices” and “experts” have little pedagogical value, these broad categories can help us make legible the process students undergo as they engage in deeper, more complex research tasks throughout their collegiate experience. The Scholarship of Teaching and Learning explains that students move through phases of competency on their way to achieving mastery in a subject. Students start at a place of unconscious incompetence, not realizing what they do not know and therefore unable to determine how they might begin to know. Experts, alternatively, exist in a space of unconscious competence, having developed skills and behaviors that allow them to “automatically and instinctually” perform the tasks necessary to excel in their discipline (Ambrose, Bridges, Dipietro, Lovett, & Norman, 2010, pp. 96-97). We would argue that this unconscious competence, for both faculty and librarians, can become a hindrance to addressing that which the novice researcher does not yet know. Failing to show students the waymarkers—in the form of our own processes, expertise, and previous struggles—leaves them more mired in confusion. One solution, again offered by Ambrose et al., is to identify component skills, habits, and dispositions that comprise mastery (2010, p. 100).

Narrowing in on search and discovery, we recognize that cumulative research experience affects the ways searchers organize and process new information. Drawing on complex, discipline-specific organizational networks in which key ideas and scholars appear as nodes with dense, conceptually-rich connections to other nodes, experts are more adept at recognizing meaningful patterns and to shift between organizational modes with ease (Ambrose et al., 2010). Describing the social dimensions of research, Barbara Fister argues that “faculty, as insiders, see knowledge in social and conversational terms. Sources are written by people and are addressed to groups of people” (2015, p. 92). This relational network provides a more organic, intuitive approach to search and discovery; as scholars approach the literature, their knowledge of its organization allows them to “identify interested parties...who might produce information about a topic and then determine how to access that information” (ACRL 2015). Experienced searchers situate new discoveries within conceptual maps, are more attuned to patterns in their results, and are better equipped to respond when unexpected patterns emerge.
We certainly cannot fix all of the four frustrations students reported, because the reality is that these exist in the research process; search is an iterative process that takes time and understanding of the information landscape. What we can address, however, is the value of being in the weeds. While contextualizing information that appears during search is likely more difficult or at least more time-consuming for students, students may be more creative and flexible in the directions they pursue. Free from the well-worn pathways between and through bodies of knowledge, students are positioned to uncover new, exciting sources of information and ways of thinking.

Taking inspiration from Carol Kuhlthau’s (2004) extensive research on the information search process (ISP), we recognize the value of teaching research as a process and acknowledging the cognitive and affective dimensions that accompany search behaviors. Discussing the role of process in learner-centered pedagogy, Klipfel and Cook describe the importance of student mindset in their examination of motivational psychologist Carol Dweck’s 1990 study. When presented with challenging tasks, students with a “growth mindset”—those who believed that valuable learning took place—were more likely to succeed than their counterparts with a “fixed mindset”—those who measured worth in terms of outcome alone (Klipfel & Cook, 2017, p. 130). Our goal is not to diminish negative research experiences or tell students to simply work harder, but to offer a way of reframing challenging experiences. This idea could transform how we teach information literacy, especially when that instruction is done in concert with faculty who develop process-oriented assignments. By valuing the search process, rather than just locating and finding information sources as a means to an end, we encourage students to view the iterative nature of research not as backtracking or failure, but as an inherent quality of the process that will ultimately lead them to a better understanding of their research topic and increased knowledge of the information landscape.

What becomes necessary, then, is to actively engage students in the “how, why, and now what” of the information literacy skills that we teach. By authentically engaging the ambiguity of research, we can encourage students to develop a holistic understanding of their current knowledge and strengths as researchers and to reflect without judgment on areas for growth. Citing the work of critical pedagogy theorists Paulo Freire, Peter McLaren, and Henry Giroux, Sinkinson and Lingold have developed critical information literacy instruction that “empowers students through a conceptual understanding of information systems and through the modeling of critical reflective information practice” (2010, p. 84). It is a disservice to our students to ask them to identify frustrating aspects of the research process without reflectively addressing those frustrations with them. Rather, critical IL pedagogy tells us that reflective practice is a tangible way to marry tools and process to achieve learning and perhaps alleviate frustration. This pedagogical approach acknowledges students’ experiences in the information seeking process and provides an opening for librarians to discuss the qualities, be they tools or competencies, that will begin to move students toward a higher level of mastery.

APPLICATIONS

The question then becomes, what does all of this look like on the ground, in the classroom? Centering ambiguity in IL instruction, first and foremost, requires a level of vulnerability from librarians. As Beth McDonough writes, “…librarians must somewhat counterintuitively relinquish their role as efficient information experts in the classroom in order to create an environment where all learners find space to share and act upon their own ideas about information and the knowledge that it represents” (2015, p. 41). In addition to sharing the components of our own research habits, we need to allow students to see that our processes, while perhaps slightly more de/redefined, do mirror some of their own wandering and backtracking. The following are activities or approaches we have used to highlight the move from novice to expert and provide students opportunities for engaged, reflective practice:

Unrehearsed Searching Using a Student’s Topic

Rather than a rehearsed database demonstration, searching using an unfamiliar topic provided by a student in class allows for multiple points of entry for students. First, it allows the librarian to work with students in determining the search strategy. Rather than performing a scripted search, the librarian can talk through decisions along the way, posing questions that highlight the metacognitive aspects of strategic search. Second, librarians can demonstrate some of the component skills that make up our expertise. Finally, an unrehearsed search shows students that the search box isn’t magic, even for those of us who are information experts. Refining search strategies is part and parcel of research and students should feel comfortable entering in research without knowing if their initial search strategy will work or not.

“Going Upstream” (Caulfield, 2017)

Initially proposed as a way for students to fact-check claims made in the news media, the act of going upstream, meaning starting from an information source that makes a certain claim and tracing that claim back to its original source, is another approach librarians can use to get students more familiar with their research topic and the information landscape as a whole. While most course assignments will require students to use scholarly sources, using more popular, easily digestible information sources is a way that students can begin to explore their research topic without having to jump into the deep end of disciplinary databases. Tracing popular
sources that are easily understood back to their original source provides an opportunity for discussion about the purpose of different information sources, intended audience, and who is writing them. More familiar with disciplinary “players” of the field, students are better able to develop search strategies and identify relevant results.

Think, Pair, Think/Search, Share Activities

Like the unrehearsed topic search, Think, Pair, Think/Search, Share engages students in the search process and allows them to be critically reflective about their own choices when doing research. In groups of two or three, students develop and test a research strategy, reflecting on the choices they make and how those choices relate to their results. After taking a majority of class time to do this and explore, the class comes back together as a group to discuss their different approaches and discoveries. We can not only dispel the myth that there is a single prescribed, linear approach to answering a research question, but also lift up the creative approaches students develop. This approach also prioritizes strategy development over source retrieval, modeling to students that time spent doing this is time well-spent.

Conclusion

It is our hope that centering ambiguity in search will shift students’ expectations that research is a direct and linear process for those in the know. Our approach positions the librarian’s expertise not in performing perfect searches every time, but in recognizing the complex process of learning to research and guiding students as they develop their own approaches.

References


