WHY LEARN TO SWIM WHEN YOU HAVE A RAFT?

MOTIVATING STUDENTS TO CHANGE THEIR RESEARCH BEHAVIORS

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INTRODUCTION

Studies show that up to 84% of undergraduates rely almost exclusively on the metaphorical “raft” of Internet resources for their research, even after receiving information literacy (or “swimming”) instruction (Boger, Dybvik, Eng, & Norheim, 2015; Cmor, Chan, & Kong, 2010). This suggests that broadly speaking, information literacy instruction isn’t particularly effective in changing students’ information seeking behaviors. In this paper, we share how predictable information literacy misconceptions influence these behaviors, undermining the effectiveness of instruction, and we make a case for the importance of librarians explicitly highlighting the relevance of instructional content.

We find inspiration in the work of author and famed TED talker Simon Sinek. The basic premise of his book Start With Why: How Great Leaders Inspire Everyone to Take Action, is that why we do something, the values and purpose, should always be at the center, and that what we do and how we do it are secondary (2011). He applies this to a business context but it has implications for librarians and teachers. He argues that inspiring people, resonating with them on an emotional level, and connecting on values can change behaviors in a way that simply explaining benefits and features usually don’t. It’s the difference between Apple leading with “we believe in thinking differently” instead of “we make great computers” (Sinek, 2011, p. 40-41). The why-centered message is intriguing and compelling, while the what-centered message is less so. This sentiment echoes the sound instructional design practice of backward design, developed by Wiggins and McTighe (2005).

Another important concept that informs our work is the rational actor paradigm from the discipline of behavioral economics (Sen, 2008). It is the understanding that people tend to act rationally and in their own perceived best interest in order to maximize utility. Utility can be thought of as the overall satisfaction that derives from a combination of choices, and will be subjective for individuals. While there will be students who derive utility from mastering new research strategies, many students also value the comfort and ease of familiar strategies, as well as sleep or time with friends.

EXPERT BLIND SPOTS

Assumptions about the information landscape with which librarians and students enter the classroom can erode the effectiveness of information literacy instruction. As experts, librarians realize that research is a complex, messy, and iterative process in which we use sources to learn and create something new, but undergraduate students may think that research is just a process of summarizing what is already known about a topic. They don’t yet realize there is a place for their own voice in the scholarly conversation. They may think that library tools should be used to find an answer, rather than to formulate one (Broussard, 2017, p. 26).
Librarians can distinguish different kinds of sources at a glance, but students who encounter these sources electronically often find the differences totally opaque. Librarians also are confident identifying the main ideas of sources and recognize the typical structure of academic articles. Students likely need help identifying main ideas in example sources before they’re able to do so independently, and may need to be made aware that older knowledge tends to be at the beginning of articles and newer information in the latter half. Finally, librarians realize that reading for academic purposes is an effortful and complex interaction that builds on existing knowledge to create meaning and not a passive activity at all. These can all be stumbling blocks to students, but they may go largely unaddressed if we don’t pay attention to our expert blind spots. Academic research is one of the most cognitively demanding activities students undertake in college, and yet they are too often asked to complete this activity independently.

**Misconceptions of Undergraduates**

Students enter our classrooms with assumptions about the information landscape, based on their lived experiences. There have been studies dating back to the 1970s of undergraduate students’ perceptions and assumptions (or misconceptions) about research and information (Cole, Napier, & Marcum, 2015; Dervin, 1976). Although no generalization applies to every individual, clear trends have been found in what students believe about information, and those predictably shape behavior. It’s important to be aware of these and reflect upon them as we plan lessons, because misconceptions are typically based on plausible inferences derived from previous experiences. In other words, they tend to be rational, even if they’re false. It’s typically not adequate to just assert that student misconceptions are false. Our authority in the classroom isn’t compelling enough for that to be accepted at face value. Students often need to experience a misconception failing them before they’re willing to relinquish it (Hinchliffe, Rand, & Collier, 2018). This generally requires repeated engagement, so librarians shouldn’t expect to dispel them all in a single instruction session.

A study by Hinchliffe et al. (2018) identified several common information literacy misconceptions of first-year college students. These are worth considering when designing instruction to ensure the value and purpose of the session is readily transparent to students. First-year college students tend to believe that:

- They are supposed to do their research without assistance;
- The library is only a place to get books or to study;
- All library sources are credible;
- Freely available Internet resources are sufficient for academic work;
- Google is a sufficient search tool.

Once we get students over the hurdle of starting to use library sources, they tend to assume that all sources are automatically credible and useful. It’s the library halo effect, and probably the influence of instructors who tend to imply that scholarly, peer-reviewed sources are the gold standard. We may unintentionally reinforce this when students are often exposed to lessons about evaluating web sources, but fewer are centered on reading and critically evaluating scholarly sources. This can create a false dichotomy for students: scholarly sources are good and everything else is bad.

Most pernicious is the prevailing misconception that “everything” is available on the free web and a naivety about how complex effective research skills are, given that for many purposes, “good enough” information can be found using Google. We have a brand differentiation opportunity. How and why are library search tools different than Google; how do library services add value? If we don’t address this, we risk looking out of touch. From their point of view and based on their lived experiences, students already do know how to find information, so when confronted with a clunky, confusing new tool during information literacy instruction, continuing to rely on Google seems like a rational choice.

**Stages of Cognitive Development**

Some of the more binary aspects of student assumptions about information, in addition to being rational when we consider their previous experiences, can also be attributed to normal stages of cognitive development. Developed by Perry (1981), this typical progression is widely accepted in student development circles as the process by which humans gradually transition in their thinking through predictable phases.

- **Dualism** is focused on facts, true and false, right and wrong. Students defer to authority figures and have an attitude that “I can learn this if you just tell me what I need to know.” This may help to explain the “library sources are automatically good” paradigm.
• Multiplicity develops as students realize that everyone has an opinion, although in this phase they tend to view all points of view as equally valid. Students may distrust authority, reason, and abstraction. We may encounter this when students seem to think that all sources are biased in one way or another.

• Relativism develops when students understand frameworks for reasoning in various disciplines and eventually realize they must make choices and commit to solutions within a particular context. Students come to recognize that knowledge is qualitative and that there are matters on which reasonable people disagree.

Those of us who work with undergraduate students should expect to encounter a lot of dualistic and multiplistic thinking. It’s normal! To effectively teach students, we must meet them where they are and nudge them along in their development toward relativism.

INSTRUCTION PITFALLS

As Warren and Duckett (2010) pointed out, “too often we leave out ‘why’ and ‘why is it this way’ in favor of ‘how’ and ‘here’s how to do it’” (p. 355). This can be well-intentioned and certainly time constraints and expectations from teaching faculty provide tempting justification. However, skills-based information literacy instruction may inadvertently reinforce student misconceptions. For example, in emphasizing how to find information, we might suggest to students that research is a linear process of finding sources first and figuring out what to say about them later (Broussard, 2017). In fact, research is a messy, iterative process which may require circling back to better understand a concept, explore a new idea, or incorporate additional sources as a student writes their paper. Similarly, by ensuring students know how to limit to peer-reviewed sources within databases, we are reinforcing dualistic thinking about source quality. In centering discussions of source evaluation on the author’s credentials and other indicators of credibility without also evaluating the usefulness of the source for an intended rhetorical purpose, we reinforce the notion that all academic sources are of equal quality.

At its very least effective, information literacy instruction can resemble a product demonstration. The librarian stands at the front of the room, gives a tour of the library website, and executes a few canned searches in a database or catalog. The librarian likely does most of the talking for 50 minutes while students sit and listen (or don’t). This model of instruction seems like trying to teach students to ride a bicycle by expertly and easily riding a bicycle in front of them and asking them to go home to ride their own. It might be even more like showing them how to ride a unicycle and expecting them to follow suit when they already have a perfectly good bicycle! If the why isn’t compelling, it might seem like we’re just asking students to do something hard because it is hard and college is supposed to be hard.

MOTIVATIONAL INSTRUCTIONAL DESIGN

Given that traditional, skills-based information literacy instruction focusing on the hows of research tends to be fairly ineffective in terms of changing students’ research behaviors, and that students act rationally in their own perceived best interest, holding tightly to their information assumptions and misconceptions, what can librarians do differently to motivate students to learn, reevaluate their assumptions, and believe that adopting new research behaviors is in their best interest?

Librarians must consider what motivates students to learn. In the late 1970s and early 1980s, Keller (1987) developed the ARCS Model of instructional design in which he suggested that to motivate students to learn, instructors must do four things: gain students’ attention, demonstrate the relevance of the material being taught, ensure that students are confident in their success, and provide opportunities for them to experience satisfaction from their learning. We are particularly interested in the relevance component of Keller’s model, which he introduced with this passage, “How many times have we heard students ask, ‘Why do I have to study this?’ When a convincing answer is not forthcoming, there is a relevance problem” (p. 3). To communicate relevance is to make clear connections between content being taught and applications of that content that are personally meaningful to students.

ENGAGEMENT QUESTIONS

We’ve posed thought-provoking questions to our students to communicate relevance or the why of what we’re teaching in instruction sessions and know from experience this strategy is effective. It wasn’t until we researched this topic that we learned others were employing this technique in a more systematic way (Warren & Duckett, 2010). Posing engagement questions can be a great way to capture student attention, highlight the relevance of upcoming content, and provide contextualization for students, connecting ways in which academic research relates to search tools and strategies students use in their everyday lives (Jacobson & Xu, 2004; Perin, 2011). They can be framed in such a way that they address common student misconceptions about information and research. They should highlight the “big ideas” and important understandings librarians want students to remember after their instruction session, as opposed to content that’s “worth being familiar with” or knowledge and skills that are “important to know.
and do,” as categorized by Wiggins and McTighe (2005, p. 71). Highlighting the big ideas, or the why of our content, can help librarians connect with students on values to change behaviors, as described by Sinek (2011), and encourage their development from “floaters” to “swimmers.”

**PRACTICAL APPLICATIONS**

We have found the following engagement questions effective for grabbing the attention of students, communicating relevance, contextualizing information, and illuminating the why of what we’re teaching.

**Question 1: Posed Prior to Instruction on Subscription Databases**

- What percentage of the Internet are you searching when you search Google?

In asking this question, letting students respond, and sharing the estimate that only 4% of content on the Internet is findable via Google (Zhao, Zhou, Nie, Huang, & Jin, 2016, p. 608), we’re creating an environment in which students can experience their misconception failing them (students generally answer 80% to 100%) and hopefully relinquish it. We then discuss the surface web, the deep web (highlighting academic databases), and the ideas that information has value and library databases cost money. In posing this question and leading the discussion it inspires, we’re able to address several student misconceptions, communicate library value, and explicitly highlight the relevance of what we’re about to teach. Understanding the why of using library databases is critical, for if a student genuinely believes that 100% of content on the Internet is available via Google, why would they ever search an unfamiliar and more cumbersome library database? They may learn how, but without understanding the why, they likely won’t change their future behavior.

**Question 2: Posed Prior to Instruction on Finding Articles**

- When would you want to use popular magazine and newspaper articles in your research?

Student answers lead to a discussion of the advantages of using magazine and newspaper articles as sources and the relative timeliness and breadth of different kinds of sources. In helping students understand why and when it’s advantageous to use different kinds of sources we encourage relativism, teaching students they must make choices about the ways they use sources within particular contexts and for particular purposes. Subsequently we address how to find these types of sources using library resources, but having this discussion first is critical to highlighting the relevance of that content, therefore increasing student motivation and odds of behavioral change.

**CONCLUSION**

In *Start with Why*, Sinek asserts that “People don’t buy WHAT you do, they buy WHY you do it.” (2011, p. 41). It’s important for librarians to seriously consider this idea in terms of our students. While not literally selling anything, librarians are trying to influence behavioral change. If students don’t “buy” in to the why of we’re teaching them, they’ll never actually do the what.

**REFERENCES**


