Using Practitioner-engaged Evidence Synthesis to Teach Research and Information Literacy Skills: A Model and Case Study

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ABSTRACT

Service learning connects learning in the classroom to real-world experience and presents opportunities for deeper library engagement in the curriculum and the teaching of critical information literacy. We present a model for teaching research and information literacy skills in the service learning context, making use of the evidence-based practice paradigm and engagement with community partners and practitioners in the field, connecting academic research to real-world practice and problem-solving. This model addresses some of the challenges of ACRL's Framework for Information Literacy in Higher Education and is adaptable to various disciplines and educational environments.

Introduction

Academic librarians broadly recognize the need for deeper engagement with higher education curriculum to achieve levels of information literacy (IL) in graduating students that prepare them for working in the real world. While the traditional model of one-shot, skills-based library sessions continues to prevail, librarians are developing creative methods to expand the boundaries of single sessions to more meaningfully connect with students and faculty. These efforts have allowed a shift in IL instruction from a skills-oriented approach toward one that views IL as conceptual and socially constructed.

In seeking opportunities to broaden the impact of library instruction, one can look to concurrent trends in both higher education, as well as in 'real-world' professional practice, for opportunities to partner with educators and integrate IL concepts into the curriculum. In this paper, we present a model for delivering IL training to undergraduates that takes advantage of service learning trends in higher education and the push for evidence-based approaches in program development and practice. The value of the service learning context as a platform for critical information literacy has been discussed in previous works, but a lack of guiding theoretical models in this vein has been noted (Riddle, 2010, p. 133). Here, we present one such model integrating service learning with the evidence-based practice (EBP) paradigm as an adaptable approach that addresses the full spectrum of information literacy skills. This model deepens the connections between classroom learning, library instruction and the service learning experience. Additionally, students' experience with EBP is enhanced with service learning

through deeper contextualization and engagement with community partners and practitioners in the field.

Our model was developed after carrying out an internship that we designed and that we describe in more detail below. This internship was funded as part of a broader university initiative to provide more engaged learning experiences for undergraduate students. The student intern, a rising Senior and Human Development major, worked closely with an extension researcher, academic librarians and community partners in a youth development program (4-H) to carry out a rapid systematic review of the scholarly literature, an approach described in more detail below. The research question and the review process were developed in close collaboration with 4-H program staff. The intern gained exposure to real-world decision-making, and engaged deeply with the scholarly literature, making the connection between research and practice. Using this EBP approach, the student actively participated in question formulation, literature searching, information appraisal and research synthesis. The end product included a written synthesis of current evidence that program staff could use to inform their current work practices, thus achieving a reciprocal benefit for both the intern and the community partner.

We begin this paper with a discussion of trends in information literacy and library instruction and how concurrent trends toward more community-engaged approaches and service learning provide an opportunity for librarians to deeply engage with course curriculum. We then discuss the incorporation of evidence-based practice concepts into the service learning context, providing a framework for critical IL training. We describe the particular context in which our internship was

developed and how the service learning model is reflected in the university's commitment to connecting research and practice. Finally, we discuss how this model addresses information literacy learning outcomes and propose ideas for scaling up or adapting this approach to reach more students.

The development and challenges of critical information literacy

The information landscape and the ways in which students find, interact with and create information, has dramatically changed in the past two decades. As a result, the definition of information literacy and approaches to teaching it have been compelled to evolve from a discrete, skills-based paradigm to a more conceptual and critical paradigm. In the academic library profession, this evolution is perhaps most notably demonstrated by the Framework for Information Literacy in Higher Education (hereafter, Framework) (Association of College and Research Libraries, 2015) introduced by the Association of College and Research Libraries (ACRL) in 2015.

The Framework is essentially meant to replace the former Information Literacy Competency Standards for Higher Education (hereafter, Standards) (Association of College and Research Libraries, 2000), approved in 2000, which had encountered criticism for being based on outdated pedagogical models. The recent shift is well described by Nancy Foasberg as moving from a "positivist approach, which assumes that information is objective and measurable" to a "social constructivist philosophy–which holds that knowledge is constructed and reconstructed through social interactions" (2015, p. 702). The previous Standards view information literacy as a set of skills that enables students to find and evaluate information, which is achieved through practice and tested through the performance of tasks. The Framework, on the other hand, considers a more transformative information literacy and redefines the student's role in the information environment. Students are no longer acting simply as users of an external commodity, but rather are active participants in the shaping, creation and interpretation of information as a social phenomenon (Foasberg, 2015).

This friction between information literacy as a set of skills vs. a dynamic and contextual process stems from the earliest uses of the term. Gibson (1995), for example, critiqued the "back-to-basics" movement, which argued that information literacy should focus on the teaching of practical, information-seeking library skills. He, and many others since then, sought to deepen the impact of information literacy instruction by placing it within the context of critical thinking. However, Gibson noted (1995, p. 27), as did Schroeder (2012) nearly two decades later, that while critical thinking has often been discussed in the information literacy literature, little attention has been paid to defining it and little basis has been established for connecting the two. Moreover, Schroeder (2012, p. 134) indicated that a "rigorous mapping of critical thinking" to the Standards was still lacking, an observation made prior to the release of the Framework a few years later. The lack of consensus on a standard definition of critical thinking in the education literature and the complexity of critical thinking from a pedagogical standpoint have also contributed to the lack of a deep analysis of critical thinking and information literacy (Gibson, 1995).

One early information literacy model that did address the role of critical thinking is that of resource-based learning (Breivik, 1998). In Breivik's model, students seek and evaluate information from a variety of sources for the purposes of solving a problem or addressing a need, often within a specific disciplinary context. This differs from the classical term paper approach, in which sources are simply gathered and synthesized, without explicit attention to outcomes or results. Instead, the critical evaluation of information is key and the idea that the meaning and value of information changes based on context is introduced.

The adoption of the Framework further bridges the gap between critical thinking and information literacy. It opens the door for a more critical information literacy, in which students are taught to more deeply engage with information and to question the power structures that contributed to the production and dissemination of that information (Tewell, 2015, p. 25). Nonetheless, shifting to the Framework as a pedagogical tool for teaching information literacy has been challenging and not without controversy. For example, Cody (2006) argued that teaching critical thinking within the timeframe of the familiar one-shot session format is simply unfeasible. In the one-shot approach, librarians are asked to provide information literacy training to a class in a single session around an hour long, often with little opportunity to engage with students outside of that session. While librarians have worked creatively to maximize their impact within these constraints (see Buchanan & McDonough, 2016), it remains challenging to get beyond database mechanics to more nuanced and complex concepts. Thus, opportunities for librarians to integrate information literacy more meaningfully into the curriculum, free of the constraints of single-session engagement, can greatly improve learning outcomes in a critical information literacy context.

Information literacy in a service learning context

So how do we reshape our approach to teaching information literacy to overcome these challenges and facilitate deeper and more critical learning? We could seek to position information literacy in the context of other pedagogical and institutional models for higher education. For example, Gibson noted that "modes of teaching and learning such as collaborative learning, problem-based learning and other forms of active learning are vehicles that help develop critical thinking abilities" (1995, p. 29). Breivik's resource-based learning model, discussed above, is an example of how information literacy has been tied to these various trends in higher education (Breivik, 1998). In fact, librarians have been quick to adapt these learning methods to the information literacy classroom, even within the constraints of a single session.

A parallel and related trend in higher education has been that of service learning. The service learning model dates back to the 1970s and had become a widespread phenomenon in higher education by the 1990s (Riddle, 2003). Terms such as engaged learning and experiential learning reflect similar approaches in which students learn within the context of organized community participation, reflect on their experience and make connections to the broader context of course content or curriculum (Bringle & Hatcher, 1996). Thus, key to the concept of service learning, and what differentiates it from volunteerism, is the concept of reciprocity. As Riddle notes, "[w]ithout linking the community activities back to the subject-based learning taking place in the classroom, service learning would be little more than a collection of random experiences" (2003, p. 72).

Compared to trends like active and problem-based learning, relatively less attention has been paid to service learning as a platform for information literacy instruction and libraries have been relatively slow to engage with service learning approaches (Kott, 2016). However, there are some notable contributions to this literature. A recently published volume entitled *Service Learning, Information Literacy and Libraries*, is perhaps the most thorough treatment of the topic to date, citing several case studies and developing the pedagogical theory linking service learning to library instruction (Nutefall, 2016). In addition, Herther discussed the opportunities presented by service learning to expand the role of librarians and establish deeper connections to both faculty and students, acknowledging the time-intensive nature of these interactions (Herther, 2008). In Breivik's description of the resource-based learning model mentioned above, she mentions service learning as one of several strategies falling under the resource-based learning umbrella.

Riddle has perhaps most thoroughly addressed the potential for service learning as a foundation for critical IL (Riddle, 2003, 2010). In his 2003 paper "Where's the library in service learning?: Models for engaged library instruction", he made an elegant argument for