

EXPLORATION OF ACADEMIC TEACHING LIBRARIANS' BELIEFS ABOUT
UNDERGRADUATE INSTRUCTION, STUDENT LEARNING, AND TEACHING
METHODS AT TEXAS DOCTORAL UNIVERSITIES

A Dissertation

by

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ABSTRACT

Teaching librarians are educators within higher education contexts. Despite their role in undergraduate student learning, little is known about the beliefs teaching librarians hold about teaching and learning and how those beliefs influence their teaching methods. To contribute to this research gap, this dissertation explores the teaching philosophies of teaching librarians at doctoral universities with very high research activity in Texas. I used a case study research design to conduct 13 interviews with teaching librarians from three institutions. This dissertation consists of three articles; each article focuses on a specific aspect of librarians' teaching philosophies: beliefs about teaching, beliefs about learning, and how beliefs influence teaching methods.

The first article explores teaching librarians' beliefs about teaching. Three primary beliefs emerged from the data: the belief in the importance of understanding students' unique learning needs, the belief in the importance of understanding students' affective dimensions of learning, and the belief in the importance of respecting the knowledge and experiences students bring to the teaching interaction. These beliefs highlight how teaching librarians have a student-centered approach to teaching.

The second article explores teaching librarians' beliefs about learning. First, teaching librarians discussed that undergraduate students learn in a variety of ways. Second, teaching librarians believed that the learning process entails students interacting with others, hands-on practice, and student reflection. Finally, in order to learn, teaching librarians mentioned that students need to see the applicability of the content and have their emotional needs met.

The third article explores how teaching librarians' beliefs about teaching and learning influenced their teaching methods. The teaching methods used by teaching librarians aligned with three themes: engaging students in the teaching interaction, connecting information literacy to the real world, and creating a supportive atmosphere.

Together these findings highlight the importance that teaching librarians place on understanding the learner. Differences in teaching librarians' beliefs were found across the three institutions, which suggests institutional culture influences beliefs. These findings have implications for acknowledging the influence of professional guiding documents, developing a library's instructional culture, and creating professional development opportunities for teaching librarians.

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NOMENCLATURE

ACRL	Association of College and Research Libraries
ALA	American Library Association
LIS	Library and Information Science

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INTRODUCTION

Academic libraries provide educational resources and services that support the teaching and learning needs of a university learning community. A librarian has a variety of instructional interactions with students, including reference desk interactions, one-on-one consultations, specialized workshops, semester-long courses, and one-time instructional sessions scheduled for one class meeting of a for-credit course. Every teaching interaction has the potential to contribute to student learning, which can be broadly defined as developmental change (Fink, 2013). This change can be a change in the neural networks of the brain (Zull, 2002), in one's understanding (Hargreaves, 1996), or in one's knowledge, beliefs, actions, or attitudes (Ambrose, Bridges, DiPietro, Lovett, & Norman, 2010; Caffarella & O'Donnell, 1987; Packer & Goicoechea, 2000). As members of the university community, librarians have a responsibility to encourage student learning by teaching information literacy so that students can learn to think critically about the types of information they use in class assignments, research projects, and daily life (Association of College and Research Libraries, 2016).

The Association of College and Research Libraries (ACRL, 2017), the primary professional association for academic librarians, uses the phrase "teaching librarian" to describe librarians who interact with students in instructional settings. In 2017, the term "teaching librarian" replaced the term "instruction librarian" in ACRL standards and guidelines in order to be more inclusive of the teaching that occurs in multiple positions in academic libraries (ACRL, 2017). Any librarian who has teaching or instruction as a professional responsibility would be defined by ACRL as a teaching librarian. Within the academic library context and the library and information science (LIS) research literature, the terms teaching and instruction are used interchangeably. While all teaching librarians have instruction as part of their job duties, the

amount of instruction depends on the position. Teaching librarian job titles include, but are not limited to, instruction librarian, instruction coordinator, subject librarian, and research and instruction librarian. Typically, the primary responsibility of an instruction librarian is teaching. In contrast, subject librarians have teaching responsibilities in addition to collection development, reference, scholarly communication, and outreach.

Within academic library settings, teaching librarians are one type of academic librarian. Academic librarian positions are divided into two broad categories: public services and technical services. For public services librarians, the majority of their job responsibilities involve working directly with library users. Technical services librarians' primary job responsibilities focus on making library materials accessible to library users. Due to the nature of their interactions with students, teaching librarians fall into the general category of public services librarians. In academic libraries, librarians at some colleges or universities have faculty status or internal ranks similar to faculty (e.g., assistant librarian, associate librarian, librarian). Whether or not a teaching librarian position is classified as faculty or staff is dependent on the institution where the librarian is employed, so some teaching librarians have faculty status and others do not.

Teaching librarians' interactions with undergraduate students are focused primarily on content related to information literacy. "Information literacy is the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning" (ACRL, 2016). Information literacy is also one of the components of the Association of American College and Universities' (AAC&U, 2008) essential learning outcomes of college education. Therefore, information literacy is a student learning

outcome that spans all disciplines and majors and is an essential ability that will be used in college, the workplace, and daily life.

Although ACRL recognizes the role of teaching librarians, librarians rarely receive formal instruction about teaching practices in LIS master's programs (Brecher & Klipfel, 2014; Bryan, 2016; Julien & Genuis, 2011; Westbrook & Fabian, 2010). Without basic graduate educational training or knowledge of the student learning process, it is challenging for teaching librarians to support student learning effectively (Brecher & Klipfel, 2014). An instructor's view of the learning process influences not only teaching, but also how students themselves learn (Trigwell, Prosser, & Waterhouse, 1999; Tynjälä, 1997). Therefore, it is important to examine how teaching librarians' beliefs about teaching and learning inform student-teaching librarian interactions in a variety of teaching interactions and settings.

Rationale for the Problem

This section provides background information and context to justify studying teaching librarian's beliefs about teaching and learning. First, I describe the evolution of the higher education environment and student learning. Then, I define teaching and learning beliefs. Finally, I connect beliefs about teaching and learning to the concept of a teaching philosophy.

Evolution of the Higher Education Environment and Student Learning

Academic libraries are situated within a changing higher education environment. Three changes particularly affect the role of teaching librarians. The first change is the shift from librarians providing resources to librarians being instructional partners. In 2008, Walter (2008) described how the profession is changing to emphasize the librarian's teaching role, and six years later Brecher and Klipfel (2014, p. 48), stated, "in today's academic landscape, librarians are educators." Library instruction has become an important aspect of public services librarians'

job duties (Brennan & Davidson, 2018; Hall, 2013). The emphasis on instructional duties creates a shift from a service philosophy that provides answers to a teaching philosophy that provides learning opportunities. As Elmborg (2002, p. 459) stated, “perhaps the hardest part of learning to teach is learning to ask questions rather than supply answers... Instead, we must see our job as helping students to answer their own questions.” This shift to instructional partners creates additional opportunities for librarians to enhance student learning but requires teaching librarians to think more intentionally about how their interactions with students foster learning.

Second, teaching in libraries is influenced by the shift in higher education from what is being taught to what students are learning. By the 1990s, the purpose and focus of undergraduate education shifted from an “Instruction Paradigm” focused on the delivery of content to a “Learning Paradigm” focused on supporting the learning of students throughout college (Barr & Tagg, 1995). This paradigm shift changed the college learning environment from a teacher-controlled environment to an environment that is “learner-centered and learner-controlled” (Barr & Tagg, 1995, p. 21). For example, the focus of course outcomes is no longer on how much content the instructor covered, but instead on what students will be able to do with the content. Understanding the teaching librarian’s role in student learning is particularly important with the shift in higher education from memorization of facts to student-centered learning focused on the development of critical thinking and creative applications (Bahr, 2000). The ways that academic librarians dealt with the shift to a learning paradigm are discussed in more detail later in this introduction.

Teaching librarians no longer only teach within libraries. Additional collaborations outside of the library, like with first-year experience programs, allow librarians to expand their instruction (Walter, 2008). This expansion of instruction requires teaching librarians to know

how instructors across their academic institution view teaching. Within the LIS profession, librarians are seen as educators, but this view does not always reflect the beliefs of colleagues outside of the library. Based on their experiences, some librarians believe that non-library faculty do not see librarians as equals and do not acknowledge the role librarians play in student learning (Julien & Pecoskie, 2009). Some students do not view librarians as teachers because librarians only explain how to find information and do not teach in traditional classroom settings (Polger & Okamoto, 2010). As a profession, one challenge for teaching librarians is to demonstrate their use of student-centered instruction in order to establish their roles as educators.

Third, with increased accountability initiatives in higher education, academic libraries are called to demonstrate how their services contribute to their institution's mission statement and to campus initiatives for student success, like increasing retention and graduation rates (Oakleaf, 2010). Multiple studies have focused on the relationship between a student's use of library services and student success measures, like GPA, graduation, and retention (e.g., Allison, 2015; Massengale, Piotrowski, & Savage, 2016; Murray, Ireland, & Hackathorn, 2016; Soria, Fransen, & Nackerud, 2013). A few studies have looked more specifically at the impact of library instruction on the student success measures of GPA (Bowles-Terry, 2012; Cook, 2014; Wong & Cmor, 2011) and retention and graduation (Cook, 2014). Together these studies have shown that library interactions were positively correlated to a student's GPA, retention, and graduation. However, the student success measures examined in these studies are influenced by a variety of factors in addition to library use. These studies do not examine how teaching interactions between a student and a teaching librarian can contribute to a student's learning.

Teaching and Learning Beliefs of Teaching Librarians

The role of teaching librarians as instructional partners, the student-centered focus of learning, and the accountability initiatives in higher education all highlight the need to examine the teaching and learning beliefs that guide teaching librarians' interactions with students. Beliefs are "based on affect, subjective evaluation, and judgment" (Vartuli, 2016, p. 1317) and are "psychologically based understandings that are felt to be true, even in the absence of evidence-based verification" (Lavigne & Dalal, 2014, p. 806). Because of the subjectivity of beliefs, a person can hold conflicting beliefs (Lavigne & Dalal, 2014). A person's actions are guided by their beliefs (Smoak, 2007). "Personal and professional experiences are a main source of beliefs" (Vartuli, 2016, p. 1318), which means a person's beliefs are influenced by their unique educational and professional experiences.

Multiple terms have been used in research to describe the concept of beliefs (Kane, Sandretto, & Heath, 2002). These terms include attitudes, feelings, values, dispositions, judgements, opinions, and perspectives (Pajares, 1992; Vartuli, 2016). Some scholars have argued that each of these terms is "conceptually different," but there is no consensus (Lavigne & Dalal, 2014, p. 806). In this paper, I operationally defined beliefs of teaching librarians as the subjective and affective perspectives that an individual thinks are true, whether or not the perspectives are based on fact (Lavigne & Dalal, 2014; Vartuli, 2016). Although a teaching librarian will hold a range of beliefs, this study will focus on the beliefs that guide a teaching librarian's professional work, more specifically their beliefs about teaching undergraduates.

Teacher beliefs can be defined as the "implicit assumptions about students, learning, classrooms, and the subject matter to be taught" (Kagan, 1992, p. 66). The discipline or subject area of the teacher influences teacher beliefs (Lavigne & Dalal, 2014). Particular ways of

thinking are inherent in certain disciplines and will influence how teachers think about how students learn about the discipline. For example, faculty members of mathematics think about solving problems in a particular way, and this disciplinary difference will influence the methods a teacher uses to teach students how to solve mathematics problems. A teacher's beliefs "have significant impact on one's interpretations of and contributions to classroom practice" (Skott, 2013 as cited in Skott, 2014, p. 19). Yet, librarians' beliefs about teaching is an underexplored area (Houtman, 2019). Beliefs are the foundation from which teaching librarians frame their interactions with students, especially their teaching interactions. In an environment where teaching librarians have a role in student learning and academic libraries must align their work to institutional missions and initiatives, it is critical to explore more deeply what teaching librarians believe about undergraduate teaching and learning.

Teaching Philosophy as Expression of Beliefs about Student Learning

A teaching philosophy is a way for a teacher to articulate their beliefs about teaching and learning. "A teaching philosophy statement is a systematic and critical rationale that focuses on the important components defining effective teaching and learning in a particular discipline and/or institutional context" (Schönwetter, Sokal, Friesen, & Taylor, 2002, p. 84). The teaching philosophy of a teaching librarian should focus on the elements necessary for effective teaching and learning in a variety of teaching interactions. Elements of a teaching philosophy include beliefs about teaching, beliefs about learning, the relationship between the learner and the teacher, the content taught, teaching methods, the classroom environment, assessment, evaluation, outcomes, and professional development (Chism, 1998; Goodyear & Allchin, 1998; Schönwetter et al., 2002). Research has demonstrated that there is an "interactive relationship among knowledge, beliefs, attitudes and their associated [classroom] practices" (Lavigne &

Dalal, 2014, p. 808). Although there are multiple components included in a teaching philosophy, in this study, I will operationally define the teaching philosophy of teaching librarians to include only beliefs about teaching, beliefs about learning, and teaching methods.

Teaching philosophy statements are written for the context in which the instructor teaches (Schönwetter et al., 2002). A teaching librarian teaches in various contexts, but beliefs about teaching, beliefs about learning, and teaching methods are elements of a teaching philosophy that are present in all teaching interactions. Beliefs about teaching include personal assumptions about teaching, “the meaning of teaching in my context,” and one’s “personal view of post-secondary teaching” (Schönwetter et al., 2002, p. 89). Beliefs about learning include personal assumptions about learning, “understandings of how students learn,” and a “discussion of learning parameters (styles, diversity, difficulties)” (Schönwetter et al., 2002, p. 89). Teaching methods articulate “how teaching is done” (Goodyear & Allchin, 1998, p. 116). These three elements could be seen as the foundational aspects of a teaching philosophy; the elements that every teaching librarian should address in their teaching philosophy.

Other elements of teaching philosophies have less applicability to teaching librarians’ teaching interactions. Teaching librarians work with students one-on-one and in group environments, so assessment and evaluation will differ depending on the number of learners in an interaction. Because many teaching interactions occur only one time, the relationship between the librarian and the learner does not always have time to develop. Teaching librarians also have varying degrees of control over the content taught, as faculty teaching for-credit courses often dictate what should be covered. Some instruction librarians teach in library spaces, but others go to a course’s university assigned classroom. Only those teaching librarians who teach for-credit courses see the same students in the same space for an extended period of time. Thus,

considering the variation in the contexts in which teaching librarians teach, beliefs about teaching and learning as well as teaching methods are the elements that best fit every context and will be the basis for my dissertation.

Research Questions

A better understanding of teaching librarians' teaching philosophies will inform practice and contribute to the study of teaching in the academic library context. An important assumption related to the study of teacher's beliefs is that a teacher's beliefs are influenced by the "context," "content," and "person" (Kagan, 1992, p. 74). While most teaching librarians teach similar content related to information literacy, each person will bring their own ideas and perceptions, and each academic library and instructional interaction will have a unique context. For example, a teaching librarian who is a former K-12 educator will hold different views about teaching than a teaching librarian who majored in chemical engineering, even though both could work in the same research university context.

Two primary determinants of the teaching librarian's context are the type of teaching interaction (e.g., one-time instruction, consultations) and the college or university setting. Each university has its own organizational culture, serves different types of students, and has a different sized library staff. The Carnegie Classification of Institutions of Higher Education (2018) classifies universities with very high research activity as R1: doctoral universities. These institutions will have academic libraries that support the research that occurs at the institution. This can mean that there are librarians at doctoral university libraries that specifically focus on instruction as well as provide library services to specific academic disciplines. Doctoral universities also have large undergraduate student populations. Therefore, this study will focus

on teaching librarians at public research universities in Texas with the Carnegie Classification of doctoral universities – very high research activity (Carnegie Classification, 2018).

The purpose of this qualitative dissertation is to explore the teaching philosophies of teaching librarians with faculty status or academic rank at public doctoral universities with very high research activity in Texas. While faculty status does not determine if a librarian has teaching responsibilities, librarians with faculty status or academic rank participate in research and/or service activities in addition to their job responsibilities. These additional expectations for research and service influence the organizational culture of the library. The research question guiding this study is: How do teaching librarians at Texas doctoral universities conceptualize their teaching philosophies with regards to undergraduate learners? This research question has the following subquestions:

- How do teaching librarians at Texas doctoral universities describe their beliefs about undergraduate teaching?
- How do teaching librarians at Texas doctoral universities describe their beliefs about how undergraduate students learn?
- How do teaching librarians at Texas doctoral universities describe how their beliefs about teaching and learning inform the teaching methods that they use with undergraduate students?

In order to examine this research question, I conducted three separate studies exploring each of the subquestions, and then, synthesized the findings to answer my research question in the concluding chapter. I provide a detailed description of the framework and the methodology I used to answer my research question later in this chapter.

History of the Problem

Teaching as Job Responsibility

Over the past two decades, teaching has become part of the job responsibilities of academic librarians in public services positions, including reference positions, instruction positions, subject librarian positions, and liaison librarian positions (Albrecht & Baron, 2002; Hall, 2013; Sproles & Ratledge, 2004; Westbrook & Fabian, 2010). Multiple factors have contributed to this change in job responsibilities including the changes in the higher education environment focused on student learning (Bahr, 2000) and the development of new technologies and online access to information (Ariew, 2014). Not only is instruction part of the job responsibilities, but also instruction is increasingly the focus of positions. Over the period of 1996 to 2009, public services librarian positions where 50% or more of the librarian's time would be spent on student instructional activities increased (Hall, 2013). The category of "teaching librarians/information literacy educators" has emerged as a specialty within academic librarianship over the last twenty years (Cox & Corral, 2013). There has also been an increase in positions responsible for coordinating instructional services in academic libraries (Albrecht & Baron, 2002; Westbrook & Fabian, 2010). From supervisors' perspectives, instruction is an essential service in academic libraries, instruction duties are integral to advertised public services positions, and instruction skills of job applicants influence hiring decisions (Avery & Ketchner, 1996; Hall, 2013). Academic librarians who have worked in academic libraries for five years or more felt that their instructional duties have increased (Brennan & Davidson, 2018). For librarians who do not focus exclusively on instruction, instructional duties are often given priority over other responsibilities, like collection development (Adler, 2003).

Within higher education institutions, librarians are critical to the “educational mission of universities” (Rapple, 1997, p. 116). While librarians have historically had an educational role in universities, by the early 2000s, the increased emphasis on information literacy in undergraduate education helped expand the teaching responsibilities of librarians (Adler, 2003). Changes in the way users accessed information meant that librarians were not only teaching to help students learn how to evaluate information, but also were teaching outside of the traditional library spaces (i.e., online) (Rapple, 1997). Even as librarians started to embrace teaching information literacy, there is a difference between teaching within the library context and teaching a credit-bearing course (Kemp, 2006). Within the library context, teaching interactions are primarily initiated by non-library faculty members or students themselves. Teaching librarians typically see students only one time, not for an extended period over the course of a semester. Information literacy is usually embedded in a discipline or context, rather than taught as its own subject (Cox & Corral, 2013). These studies highlight the evolution and emergence of teaching responsibilities of teaching librarians and the critical need to explore how they make meaning of these expanded roles.

Responses to Emergence of Teaching Duties

The integration of teaching as a job responsibility for reference librarians and as a separate focus for other positions led to conversations and guidelines within the academic library profession to facilitate the teaching role. In 2000, the changes in teaching perspectives that were occurring in higher education during the 1990s prompted a series of essays on the future teaching roles for librarians in the new environment. Bahr (2000) introduces the essays with the statement: “The new paradigm for higher education involves a dramatic shift from passive teaching to interactive, collaborative student-centered learning, not of facts, but of processes that

help learners think critically and apply concepts creatively” (p. 1). The essays, written by thought leaders both inside and outside the LIS discipline, provide aspirational roles for librarians to attain in regard to teaching and student learning in the new paradigm. The role of the librarian in the learning process should focus on helping students learn how to learn on their own (Allan, 2000; Macadam, 2000). Additionally, librarians need to be open to assisting students throughout the learning process, not just at the point of finding information (Wilkinson, 2000). In order to accomplish this, the librarian’s role must go beyond demonstrating how to find resources and help students learn how to ask questions (Allan, 2000; Wilkinson, 2000). Librarians also need to expand their conceptions of where learning takes place (Bell, 2000). Learning can take place outside of the library instruction session; it could be other places in the library like the reference desk or the student’s residence hall (Bell, 2000). Bell’s point emphasizes two aspects of learning as it relates to teaching librarians. First, teaching and learning happen in various teaching librarian interactions with students, not just those in a traditional classroom setting. Second, teaching librarians should help students learn information that can be used in other learning contexts. For example, critical evaluation of an information source may occur in a student’s residence hall while working on an assignment, rather than while the student is sitting in the presence of a librarian.

While the essays were aspirational about the librarian’s teaching role, the increase in librarians’ teaching responsibilities led to ACRL’s adoption of the *Information Literacy Competency Standards for Higher Education (Standards)* (ACRL, 2000) in 2000. The *Standards* articulated a list of outcomes that students should achieve in order to become information literate. Then, in 2008, ACRL adopted *Standards for Proficiencies for Instruction Librarians and Coordinators: A Practical Guide* (ACRL, 2008). This document outlined the skills

instruction librarians needed in order to be successful; teaching was one of the 12 categories of proficiencies.

Fifteen years after the adoption of the *Standards*, ACRL (2016) adopted the *Framework for Information Literacy for Higher Education (Framework)* in January 2016 and rescinded the *Standards* in June 2016. The ACRL Board emphasized the difference between a framework and a standard by stating, “the new *Framework* document remains a framework, not a standard, so that it can move forward as a dynamic, living document with great flexibility and potential” (ACRL Board of Directors, 2016a). No specific reason was provided in the announcement on the ACRL Insider blog about the ACRL Board’s decision to rescind the *Standards* (ACRL Board of Directors, 2016b). Based on the public announcements, it can be assumed that the ACRL Board felt the *Framework* provided a better direction for conceptualizing how a student develops information literacy, the teaching librarian’s role in information literacy, and the role that students play in the information landscape.

According to the *Framework*, for students to become information literate, they work through six frames: (1) Authority Is Constructed and Contextual, (2) Information Creation as a Process, (3) Information Has Value, (4) Research as Inquiry, (5) Scholarship as Conversation, and (6) Searching as Strategic Exploration. The six frames are based on the theory of threshold concepts, “core or foundational concepts that, once grasped by the learner, create new perspectives and ways of understanding a discipline or challenging knowledge domain” (ACRL, 2016). Each frame provides guidance in the form of “knowledge practices” (i.e., how students act) and “dispositions” (i.e., how students think) as they develop their abilities related to information literacy. For example, the Authority Is Constructed and Contextual frame focuses on getting students to recognize that the legitimacy of information is context dependent.

The conceptualization of learning in the *Framework* is different from the skills and outcomes articulated in the *Standards*. The *Framework* also allows teaching librarians more flexibility in its implementation and lets individual libraries or librarians determine learning outcomes (ACRL, 2016). This characteristic means teaching librarians have to rethink their approach to teaching, instruction techniques, and assessment (Nichols Hess, 2015). The *Framework* was designed to be a document that creates a common view of information literacy instruction within the librarian profession and move the profession forward in terms about thinking about teaching information literacy. However, the *Framework*, its underlying theoretical basis, and its replacement of the *Standards* has been debated (e.g., Bombaro, 2016; Wilkinson, 2014). Arguments against the *Framework* have focused on how libraries have integrated the *Standards* into campus initiatives and how the *Framework* will undo the work that has been accomplished with integrating information literacy on campuses (Jackman & Weiner, 2017; Wilkinson, 2016). These arguments focus on the practical aspects of the *Framework*, rather than how the *Framework* integrates with teaching librarian's beliefs about teaching and learning.

Regarding the relationship to teaching philosophies, the frames provide the subject matter that a librarian teaches, but little research has shown how the *Framework* and the idea of threshold concepts connect with teaching librarians' teaching philosophies. Research about the *Framework* has focused on how librarians feel about the *Framework* in relation to their teaching (Gross, Latham, & Julien, 2018), librarians' preparations for implementing the *Framework* (Charles, 2017), the teaching strategies librarians use to implement the *Framework* (Latham, Gross, & Julien, 2019), and how librarians can learn about the *Framework* (Nichols Hess, 2015). These studies focused their inquiry on the *Framework*, rather than the broader beliefs teaching librarians hold about teaching and learning. Because of the importance of the *Framework*, it is

possible that the *Framework* has influenced teaching librarians' beliefs about teaching and learning, but more research is needed to explore this connection.

One year after the adoption of the *Framework*, ACRL (2017) revised the proficiencies for instruction librarians in the *Roles and Strengths of Teaching Librarians (Roles and Strengths)*. Notably, the term "instruction librarian" was replaced with "teaching librarian." The *Roles and Strengths* document highlights seven roles (advocate, coordinator, instructional designer, leader, lifelong learner, teacher, and teaching partner) and the associated strengths for succeeding in each of the roles. Engaging with the *Framework* is key for enacting each of the roles (ACRL, 2017). The development of both the *Framework* and the *Roles and Strengths* demonstrates the ubiquity of the teaching role of librarians as well as a profession that aims to have flexibility in its guidance for how teaching librarians teach information literacy.

Statement of the Research Problem

After a review of the history of the research problem, in this study, I define a multifaceted problem that highlights the need for a greater understanding of teaching librarians' beliefs about teaching and learning. First, LIS graduate training and library professional development about teaching and learning for teaching librarians are not well established. This means that the responsibility for developing their instructional knowledge and skills is often on teaching librarians. Second, an academic library's professional climate may not be focused on valuing teaching excellence for librarians. The professional climate for instruction could influence how teaching librarians think about teaching. Third, teaching librarians need to illustrate their impact on the student learning outcomes espoused in institutional mission statements. This means teaching librarians are having to provide evidence that they are contributing to the holistic student learning outcomes articulated by higher education institutions. Finally, the professional

organization for academic teaching librarians, ACRL, recently adopted the *Framework*, which provided new guidelines for information literacy instruction, yet there is little indication of how those guidelines complement teaching librarians' beliefs. Therefore, a disconnect exists between the practical application of the *Framework* and the philosophical application of the *Framework*.

These four facets of the problem call for a better understanding of teaching librarian's beliefs. My research on how teaching librarians describe their beliefs about teaching and student learning will provide additional insights about (1) graduate education and professional development, (2) the role of professional climate for instruction, (3) alignment with institutional mission statements, and (4) the influence that ACRL's guiding documents have on teaching librarians.

Research on Teaching Librarians

Many studies have explored the teaching experiences of librarians. While the literature on teaching librarians is vast, the literature review below will focus on three areas: learning how to teach, teaching methods, and teacher identities and roles. These areas align with and provide context to the three elements in my operational definition of a teaching philosophy: beliefs about teaching, beliefs about learning, and teaching methods. Additionally, these three areas will provide the framework for my three subquestions.

Learning How to Teach

As teaching has become part of the job for public services librarians, increased attention has been placed on how librarians learn to teach. General research studies of librarian teaching roles as well as studies focused specifically on how librarians learn about teaching have explored how teaching librarians learned to teach. Studies examined master's program curriculum, librarian reports of learning, and professional development.

Publications in the field have made it clear that LIS master's degree programs have tried to keep up with preparing students for the shift to teaching roles in academic libraries. In 1998, over half of the American Library Association (ALA) accredited LIS programs offered a course on teaching (Westbrook, 1999). In 2007, 85% of ALA accredited programs had a class on library instruction and about two-thirds of required reference courses included an information literacy component (Sproles, Johnson, & Farison, 2008). By 2016, almost all ALA accredited programs had an instruction course, but only 92% offered a course aimed at academic librarians (Miller, 2016). While progress has been made in regard to the availability of courses on instruction, research has shown work is still needed on the applicability of the course content (Houtman, 2010; Westbrook & Fabian, 2010). For example, survey respondents indicated that in graduate school, they did not learn the proficiencies for library instructors identified by ACRL (Westbrook & Fabian, 2010), and some master's programs emphasized teaching as equivalent to giving a presentation (Houtman, 2010).

Since courses on instruction in LIS master's programs are a recent development, many studies have focused on how librarians learned to teach outside of LIS degree programs. Librarians typically learn instructional techniques on the job, at conferences or workshops, and through self-directed learning (Albrecht & Baron, 2002; Bryan, 2016; Cull, 2005; Julien & Genuis, 2011; Westbrook & Fabian, 2010). Learning on the job includes specific training, observation, and trial and error (Bewick & Corral, 2010; Hall, 2013). Houtman (2010) investigated how teaching librarians learned to teach and learned from participants that learning to teach is directly tied to job duties and that teaching focused on success with little place to talk about instructional failures. Looking deeper at what librarians know about teaching practices, Bewick and Corral (2010) found most participants felt comfortable with their level of

pedagogical knowledge, but knowledge of teaching and learning theories and instructional design emerged as two areas where librarians had the least amount of competence. In terms of instructional knowledge, librarians believed that their LIS degree program did not adequately prepare them for assessment, instructional design, and teaching (Bryan, 2016). Prior research has moved the conversation from where teaching librarians learn to teach to what teaching librarians still need to learn about teaching and learning. Since teaching librarians might not have knowledge of teaching and learning theories and best practices, more studies need to explore how teaching librarians conceptualize teaching and learning.

The knowledge of how librarians learn to teach has prompted further discussion on professional development related to teaching. This research area has described specific programs, like the Library Instruction Leadership Academy (Davies-Hoffman, Alvarez, Costello, & Emerson, 2013), or self-directed learning methods (Brecher & Klipfel, 2014) for librarians to use to learn about teaching. Walter (2006) described the ways non-library faculty improve their instruction in order to stimulate ideas for how librarians can participate in professional development.

Other scholars have considered the role of library work culture on how teaching librarians become better teachers. Carroll and Klipfel (2019) proposed a framework, which includes both teaching librarians and administrators, for improving the culture of academic libraries around learning to be a better teacher. This study demonstrates that researchers are continuing to explore how an academic library's culture influences a teaching librarian's professional development. Therefore, my study aims to advance how libraries can shape their professional climate or organizational culture about instruction and their professional development opportunities by exploring teaching librarians' beliefs about teaching and learning.

Organizational culture influences how librarians discuss teaching and learning in daily conversations with colleagues both in the library and in the institution. Understanding teaching librarians' beliefs about teaching and learning is critical for developing professional development programs that address the needs of teaching librarians. Additionally, needs-based professional development efforts may improve the organizational culture as it relates to instructional professional development.

Teaching Methods

Studies on teaching methods explore the practical aspects of teaching as it relates to a librarian's duties. Two themes comprise this research area. The first theme of teaching methods has focused on describing the characteristics of instruction sessions. Studies conducted of teaching librarian practices have focused on the methods, content, objectives, locations, learners, and assessment that librarians are using in their instruction sessions. Instruction sessions take place in computer labs (Julien, 2000; Julien, Gross, & Latham, 2018). Most instruction sessions are single presentations, not semester long courses (Davis, 2007; Julien & Genuis, 2011; Patterson & Howell, 1990). Undergraduates are the learners in most instruction sessions (Julien et al., 2018). Librarians teach research strategies that are transferable (Cull, 2005; Julien, 2000; Julien et al., 2018) and how to evaluate information (Julien et al., 2018). Librarians face challenges with resource limitations and developing working relationships with students and non-library faculty (Davis, 2007; Julien, 2000; Julien & Genuis, 2011; Julien et al., 2018).

While librarians have goals for their sessions, not all librarians write learning objectives for their instructional sessions (Julien et al., 2018). The use of active learning techniques is common in both large and small academic libraries (Cull, 2005; Zdravkovic, 2010), and librarians felt hands-on activities typically worked well in instruction sessions (Zdravkovic,

2010). Teaching librarians also felt that the *Framework* has influenced the design of their instruction sessions and resulted in the use of more interactive activities (Latham et al., 2019). Librarians assess their instruction primarily from informal evaluations with non-library faculty who request the session, formative assessment, and student self-evaluations (Julien, 2000; Julien et al., 2018).

The second theme focused on providing advice on how to implement particular teaching methods. Active learning (e.g., Cooperstein & Kocevar-Weidinger, 2004; Detlor, Booker, Serenko, & Julien, 2012; Julien, 2000), critical information literacy (e.g., Baer, 2016; Beilin & Leonard, 2013; Elmborg, 2006; Reale, 2012), and reflective practice (e.g., Corrall, 2017; Macdonald, 2009; Reale, 2017) dominate the literature on how librarians frame their teaching practices. Critical information literacy describes a method of teaching information literacy that focuses on the context in which information is created, disseminated, and utilized (Baer, 2016; Beilin & Leonard, 2013). Most of the literature about these teaching practices offer examples, discussions, and advice for how librarians can incorporate the principles into their own teaching (e.g., Baer, 2016; Beilin & Leonard, 2013; Foster, 2018; Reale, 2012). The scope of this research area suggests that teaching librarians want to have practical advice for implementing new ideas in their instruction. As researchers have stated, there is still a need for more research examining “voices, emotions, and processes of ILI [information literacy instruction] librarians” (Galoozis, 2019, p. 1043). This statement highlights an area of teaching librarian practice that remains to be examined: the beliefs that contribute to the use of particular teaching methods.

While multiple studies have explored what and how librarians teach, less research has explored why teaching librarians incorporate certain teaching methods in their instruction. Galoozis (2019, p. 1042) found that “feedback from students and colleagues, time to reflect, and

the ability to set significant emotionally connected goals” influenced teaching librarians’ decisions to modify teaching methods. This study shows that other researchers are considering the influence of affective dimensions in teaching librarians’ practice. My study builds off this work by further exploring the teaching and learning beliefs that influence teaching librarians’ choices to use particular teaching methods.

Teacher Identities and Teacher Roles

Another research area has explored librarians’ perceptions, conceptions, beliefs, and feelings about teaching roles and teaching identities. A teaching or teacher identity is “an individual’s self-perception about his or her work as an educator” (Beauchamp & Thomas, 2009 as cited in Nichols Hess, 2019, p. 54). Research in the area of teaching identities has examined if teaching librarians have a teaching identity as well as the factors that influence the teaching identity. Teaching librarians see instruction as part of their professional identity (Julien & Genuis, 2011) and are passionate about teaching (Cull, 2005). In another study, five themes emerged related to teaching identity: *the centrality of teaching, importance of collegial and administrative support, the stress of multiple demands, the problems with professional education, and stereotypes and misperceptions* (Walter, 2008). These five themes highlight both personal and environmental factors that librarians believe influence their teaching identity. While related to a teaching philosophy, a teaching identity is a different concept. More research is needed to explore how teaching identity, the institutional context, and training influence the development of teaching librarians’ teaching philosophies.

The identity of a teaching librarian has multiple contradicting components that can be challenging to integrate, including subject librarian, guest speaker, and faculty member (Mattson, Kirker, Oberlies, & Byrd, 2017). While subject librarians teach, they often have other duties in

addition to teaching. Many teaching interactions between teaching librarians and undergraduate students occur in one-time instructional sessions, where faculty members outside the libraries view the teaching librarian as a guest speaker rather than an instructional counterpart. Mattson, Kirker, Oberlies, and Byrd (2017) demonstrated that despite the professional rhetoric that emphasizes librarians as teachers, not all teaching librarians see themselves as teachers. Other components of a teaching librarian's professional identity can overshadow the teaching identity.

The contexts in which librarians work can impact both their teaching role and their teaching identity. An institution's definition of teacher influences how librarians find meaning in their teaching role (Austin & Bhandol, 2013). A librarian's teaching role is highly influenced by relationships with faculty outside of the library (Julien & Pecoskie, 2009). A larger percentage of librarians who taught both for-credit and course embedded instruction identified as being a teacher, compared to librarians who only taught course embedded instruction (Davis, Lundstrom, & Martin, 2011). After participating in the Scholarship of Teaching and Learning (SoTL), teaching librarians had a stronger teaching identity (Hays & Studebaker, 2019). If a librarian had an additional master's degree or doctorate, this additional education affected the types of experiences (e.g., "motivation from supervisors," "writing and technology-rich teaching") that influenced their teaching identity (Nichols Hess, 2019, p. 63-64). Together these studies illustrate the need to consider the institutional environment where a teaching librarian practices when examining beliefs about teaching and learning.

Research has explored how librarians experience the teaching role separately from the librarian's teacher identity. A teacher identity is based on someone's self-perception, but the teaching role emphasizes the act of teaching, whether or not the teaching librarian perceives themselves as a teacher. At times, the teacher role can conflict with teaching activities that are

considered part of a librarian role, like providing instruction at the reference desk (Austin & Bhandol, 2013). Not all librarians want to commit fully to the teaching role, even if teaching is part of their job duties (Austin & Bhandol, 2013). Academic librarians in Lithuania and Poland who teach information literacy had positive feelings towards teaching, themselves as teachers, and improving their teaching (Grigas, Fedosejevaitė, & Mierzecka, 2016). These librarians commented most negatively about the amount of work teaching requires and anxiety during teaching (Grigas et al., 2016). In comparison, academic librarians in the United States reported enjoying teaching, particularly when considering how the library content contributes to student success; however, many still experienced nervousness or teaching anxiety before an instruction session (Davis, 2007). While the emotional aspect of teaching has been explored (Julien & Genuis, 2009), a key area for further research is the anxiety librarians feel about teaching. Examining what beliefs teaching librarians hold about teaching can help develop an understanding of why teaching creates anxious feelings about this aspect of their work.

Wheeler and McKinney (2015, p. 111) found four ways that librarians conceptualize their teaching role: *teacher-librarian*, *learning support*, *librarian who teaches*, and *trainer*. *Teacher-librarians* do the same type of work non-library faculty do. In the *learning support* conceptualization, librarians view teaching as different in the library context and do not see themselves as the same as faculty members in other academic disciplines. Those with the *librarian who teaches* conceptualization are hesitant to acknowledge the teaching role and desire to maintain a separate librarian identity. The *trainer* conceptualization does not acknowledge any teaching or identity as a teacher, rather skills training is the focus. “Librarians’ conceptions of their teaching appeared to be closely linked with their conceptions of themselves as teachers and also of IL [information literacy]” (Wheeler & McKinney, 2015, p. 122). The relationship

between their conception of teaching and their conception of information literacy is important because a teaching librarian's teaching philosophy is also perhaps influenced by their beliefs of the subject area where they teach. Wheeler and McKinney (2015) demonstrated that librarians have different interpretations of their role as teachers and shows researchers are considering how librarians make meaning of their role as teachers. This is one of the few studies that examines librarian perceptions of teaching. My study will build on this previous work by exploring beliefs about learning, teaching, and teaching methods that can influence a teaching librarian's conceptualization of the teaching role.

Framework of the Three Interrelated Studies

This dissertation research study aims to explore the teaching philosophies of teaching librarians, who focus on undergraduate instruction at doctoral universities in Texas. Whether formally written or tacitly held, teaching philosophies influence how teaching librarians approach their teaching interactions with undergraduate students. My research focuses on three elements of a teaching librarian's teaching philosophy: beliefs about teaching, beliefs about learning, and teaching methods. These elements warrant additional research as they are the foundational aspects of a teaching librarian's teaching philosophy and have been under-examined in the research literature.

Theoretical Framework Guiding This Study

The theory of planned behavior (Ajzen, 2002) is the theoretical framework guiding these studies. Studies on teaching beliefs and practices in higher education have been criticized for not distinguishing between espoused theories of action, what instructors say, and theories-in-use, how instructors act in practice (Kane et al., 2002). Therefore, it is important to frame these three interrelated studies within a guiding theoretical framework. According to the theory of planned

behavior, three factors influence one's actions: behavioral beliefs, normative beliefs, and control beliefs. In this section, I will elaborate on how the rhetoric of teaching philosophies aligns with the reality of teaching librarians' practices through the lens of Ajzen's theory of planned behavior.

Behavioral beliefs are "beliefs about the likely consequences or other attributes of the behavior" and are internal beliefs that contribute to one's feelings towards the behavior (Ajzen, 2002, p. 665). These are internal beliefs about what is going to happen if one behaves a particular way. If teaching librarians do not believe that undergraduate learning is important, they are likely to pursue the path of least resistance when faced with challenges. For teaching librarians, behavioral beliefs could be related to their academic library culture. If the culture promotes a commitment to good teaching, teaching librarians may be more willing to enact their espoused teaching philosophies when faced with challenges because they believe good teaching will have positive consequences. If the climate does not promote good teaching, teaching librarians may be less likely to have a teaching philosophy and less likely to enact good teaching as the behavior is not valued.

Normative beliefs are "the normative expectations of other people" and create perceptions of "social pressure" (Ajzen, 2002, p. 665). For teaching librarians, graduate training sets the stage for normative beliefs. Normative beliefs are further defined by the library climate, professional development, and library organizations, like ACRL. The beliefs of library colleagues, administrators, non-library faculty, and students contribute to the library climate and the expectations of teaching espoused in the climate. Depending on how professional development for teaching is integrated into the library's climate, teaching librarians will hold different normative beliefs about teaching. Library organizations, like ACRL, also espouse ideas

about what is good teaching and what it means to be a teaching librarian. All three of these social pressures will influence how teaching librarians take the time to articulate a teaching philosophy and if they implement the beliefs described in their teaching philosophy.

Control beliefs are “the presence of factors that may further or hinder performance of the behavior” and “give rise to perceived behavioral control, the perceived ease or difficulty of performing the behavior” (Ajzen, 2002, p. 665). Control beliefs are external factors that can be positive or negative. For example, the location of the instruction session or the amount of time needed to prepare for a class. If a teaching librarian has a strong commitment to their teaching philosophy, they are likely to enact their philosophy whether the control beliefs are positive or negative. However, if a teaching librarian does not have a strong commitment to their teaching philosophy, they might only enact their philosophy when the control beliefs are positive and revert to less than ideal teaching practices with the control beliefs are negative.

Together these three antecedents create behavioral intention, and “given a sufficient degree of actual control over the behavior, people are expected to carry out their intentions when the opportunity arises” (Ajzen, 2002, p. 665). This is where a teaching librarians’ teaching philosophy has the potential to impact practice. The theory of planned behavior provides a lens for understanding how teaching librarians move from espoused beliefs to actual behavior. A teaching philosophy can influence the way a teaching librarian responds to antecedents. Teaching librarians who have a strong commitment to their teaching philosophy will be more likely to enact their espoused beliefs in the face of negative antecedents. However, if a teaching librarian has a low commitment to their teaching philosophy and they are presented with negative antecedents, they are less likely to enact the beliefs they espouse in their philosophy.

Description of the Three Studies

The research question guiding this study is: How do teaching librarians at Texas doctoral universities conceptualize their teaching philosophies with regards to undergraduate learners?

This research question has three subquestions:

- How do teaching librarians at Texas doctoral universities describe their beliefs about undergraduate teaching?
- How do teaching librarians at Texas doctoral universities describe their beliefs about how undergraduate students learn?
- How do teaching librarians at Texas doctoral universities describe how their beliefs about teaching and learning inform the teaching methods that they use with undergraduate students?

This dissertation consists of three interrelated research studies. Each research study answers one of the subquestions and in doing so focuses on one of the three elements of a teaching librarian's teaching philosophy.

The first study, which addresses the first subquestion, examines teaching librarians' beliefs about teaching in order to provide additional context to the studies on librarian teaching identity, teaching role, and assumed beliefs about teaching. Teaching beliefs are "ideas on how teachers can facilitate the learning process" (Chism, 1998, p. 2). These ideas include personal definitions and views of teaching as well as what teaching looks like in one's particular context (Schönwetter et al., 2002). This study explores how teaching librarians describe what teaching is and what it means to teach undergraduates in the academic library context.

In order to explore teaching librarians' beliefs about teaching, interview questions focused on the teaching librarians' teaching identities and teaching roles within their institutional

context. I asked participants how their organizational culture influences their teaching practices. Other questions explored how participants describe their teaching role and how their teaching role influences their teacher identity within the library profession.

The first study is guided by the research focused on teaching librarians' teaching identities and teaching roles. Teaching librarians' beliefs about teaching are rarely examined separately from the concepts of teaching identity and teaching role. Teaching identity focuses on an "individual's self-perception" (Nichols Hess, 2019, p. 54) or "the way in which your work as and sense of being a librarian shapes how you think about and experience a new teaching role" (Austin & Bhandol, 2013, p. 22). Multiple studies have explored librarians' teaching identities (e.g., Davis et al., 2011; Julien & Genuis, 2011; Mattson et al., 2017). These studies often focus on the external factors that influence a librarian's self-perceptions, leaving limited exploration of the beliefs that librarians themselves hold about teaching. Examinations of a teacher role imply that teaching is one aspect of a librarian's duties and have found that librarians feel ambivalence (Austin & Bhandol, 2013) and anxiety (Davis, 2007; Grigas et al., 2016) toward their teaching role. Yet, the beliefs about teaching that underpin these affective feelings are not fully explored. More research is needed on beliefs about teaching so that there is a better understanding of why librarians have these affective feelings about teaching. Prior experiences with teaching in K-12 and college contexts can influence beliefs about teaching. As the contexts where teaching librarians teach are different than the K-12 and college contexts, it is important to understand what beliefs librarians are bringing with them to teaching interactions. Finally, the belief that teaching is an "innate talent" has been assumed to be part of the professional discourse (Carroll & Klipfel, 2019), but little evidence is provided to show if this is true.

The second study, which addresses subquestion two, explores teaching librarians' beliefs about how undergraduate students learn. For many faculty, their conceptions of student learning "are intuitive and based on experiential learning, rather than on a consciously articulated theory" (Chism, 1998, p. 1). Learning conceptions include "beliefs about learning, understandings of how students learn, [and] discussion of learning parameters (styles, diversity, difficulties)" (Schönwetter et al., 2002, p. 89). The focus of this study is on how teaching librarians think about the student learning process. The examination of librarians' beliefs about student learning is important because these beliefs might not be congruent with learning theories or research about learning. Additionally, as teaching librarians interact with students in a variety of contexts, this study will clarify if librarians differentiate the learning process between contexts. For example, do teaching librarians view the student learning process differently if they are teaching a one-time instruction session to multiple students than if they are working one-on-one with a student during a research consultation.

Interview questions that explore teaching librarians' beliefs about learning focused on the participant's preparation for teaching, the role of the *Framework*, and beliefs about undergraduate learning. Participants were asked to describe any training that prepared them for teaching in order to understand their background knowledge of learning principles and theories. Additionally, an interview question asked participants about how the *Framework* guides their teaching. Finally, participants were asked to describe how they believe undergraduate students learn best.

The second study is guided by previous research on teaching librarian's preparation for teaching and the *Framework*. Teaching librarian's beliefs about learning have not been examined separately from beliefs about teaching, teaching identity, and teaching roles. The adoption of the

Framework warrants more examination of how librarians believe that learning occurs because the *Framework* is based on a particular learning theory, threshold concepts. The use of threshold concepts in the *Framework* has been debated (e.g., Wilkinson, 2014). Researchers have examined how librarians feel about the *Framework* (e.g., Gross et al., 2018) and advice abounds for how to implement the Framework (e.g., Nichols Hess, 2015). However, I could find no studies that explicitly explore what beliefs teaching librarians hold about undergraduate student learning and if the *Framework* integrates with those beliefs. Exploration of teaching librarians' beliefs about learning is critical because a guiding document in the profession is based on a particular learning theory. Additionally, many librarians do not have formal learning experiences related to learning theory, so there is no assumed knowledge base when it comes to how learning occurs. Therefore, more research is needed to develop a better understanding of what beliefs teaching librarians hold in regard to undergraduate student learning.

The third study, which addresses subquestion three, investigates how beliefs about teaching and learning inform the teaching methods that teaching librarians use in their interactions with undergraduate students. The focus of this paper is on what Chism (1998) described as the "implementation of the philosophy," how the teaching librarian's beliefs about teaching and learning are put into practice. When describing how their philosophy is implemented, teachers discuss the methods they use to teach content, how their class is designed, how student learning is assessed, and the teacher's "personal skills and strengths" (Chism, 1998; Schönwetter et al., 2002, p. 89). This definition expands teaching methods to encompass other areas of instructional design. While the focus of this study is on the teaching methods, consideration must be given to contextual factors that influence the implementation of particular methods, like rapport with non-library faculty (Julien & Pecoskie, 2009), type of instruction

(Davis et al., 2011), and professional development opportunities (Hays & Studebaker, 2019).

This study focuses on how librarians decide what methods to use in their teaching interactions with undergraduate students.

Building from the questions on teaching and learning, the interview questions for the third study focused on the methods that librarians use when teaching undergraduates. One question asked participants to describe the methods that they use in their instruction sessions and consultations (see Appendix A). I also asked participants to elaborate on how their teaching methods help students become information literate. Additionally, a question asked participants how their library culture influenced their teaching practices.

The third study is guided by literature on teaching librarians' instructional decisions and instructional preparation. While teaching methods are discussed widely in professional literature, the motivation behind a teaching librarian's decision to use a particular teaching method has not been fully explored. Only a few studies have looked at what guides teaching librarian's instructional decisions (Cull, 2005; Galoozis, 2019; Yearwood, Foasberg, & Rosenberg, 2015). Additionally, one of the areas related to teaching that teaching librarians feel the least knowledgeable about is instructional design principles (Bewick & Corral, 2010; Bryan, 2016). This limited knowledge of instructional design could influence the way teaching librarians design their teaching interactions with undergraduate students. The connection between a teaching librarian's beliefs about teaching and learning and their choice of teaching methods is missing from the conversation. Additional studies are needed to explore why teaching librarians choose to use particular teaching methods.

Finally, I answer my research question, how librarians at Texas doctoral universities describe their teaching philosophies in relation to undergraduate learners, in the concluding

chapter. Each of the three studies explores one element of a teaching librarian's teaching philosophy in depth. However, each of these elements contribute to the teaching librarian's overall teaching philosophy. In synthesizing the findings across the three studies, I consider how beliefs about teaching, beliefs about learning, and teaching methods interact and influence a teaching librarian's interactions with undergraduate students at doctoral universities.

Overall Methodology

In this section, I provide a brief description of the research methodology that I implemented across all three of the interrelated studies. I describe the research design, the cases, data collection, protocol design, data analysis, my researcher positionality, and limitations.

Research Design

The research design for these qualitative studies is a case study. For this dissertation research, I use Creswell and Poth's (2018) definition of case study research: "a qualitative approach in which the investigator explores a real-life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information" (p. 96). One key assumption of qualitative research is that individuals construct their own reality, and that reality is not static (Merriam, 1998). Yin (2018) describes an approach to case study research that is rooted in the positivist paradigm, but states that the design of case studies described in his book can be utilized in a paradigm with multiple realities. Therefore, I referred to Yin's (2018) approach to case study research but made modifications as necessary to fit the assumptions of qualitative paradigm.

A case study is an appropriate research method to answer my research question for two reasons. First, the most appropriate questions to answer using a case study are how and why questions (Yin, 2018). My research question and subquestions focus on exploring how teaching

librarians at doctoral universities describe their teaching philosophies. Second, case studies are best when the distinctions between a phenomenon and the context are not clear (Yin, 2018). Prior research has shown the importance of context when studying teaching librarians' roles and identities (e.g., Austin & Bhandol, 2013; Davis et al., 2011; Julien & Pecoskie, 2009; Nichols Hess, 2019), which demonstrates that the phenomenon of interest and the context do not have clear distinctions. By using a case study research design, I can explore teaching librarians' teaching philosophies within the unique context of their doctoral university and specifically their library unit.

Data Sources: Institutional Selection

This case study examines the teaching philosophies of teaching librarians at three doctoral universities with very high research activity in Texas. I use the following pseudonyms to refer to each of these institutions in reports of this research: Regional Research University (RRU), Northern Research University (NRU), and Metropolitan Research University (MRU). The issue under investigation in this case study is teaching librarians' teaching philosophies (i.e., beliefs about teaching, beliefs about learning, and teaching methods). The context of a doctoral university in Texas creates the bounded system for my case study. Since I focus on a single issue at three different universities, the type of qualitative case study I conducted is a collective case study or multiple instrumental case study (Creswell & Poth, 2018).

Research on teaching librarian's teaching identity and teaching roles has demonstrated the importance of the context (e.g., Austin & Bhandol, 2013; Davis et al., 2011; Julien & Pecoskie, 2009; Nichols Hess, 2019). Therefore, three interrelated cases are used for this collective case study in order to compare the contextual differences between similar institutions. The institutional cases were selected using homogeneous sampling, where all sites have a similar

characteristic (Creswell & Guetterman, 2019). Each case is a public doctoral university in Texas where teaching librarians have faculty status or ranks within the library similar to faculty (e.g., assistant librarian, associate librarian, librarian). Three universities will be the sites of the cases. The decision for the number of cases to include is a decision made by the researcher based on the topic (Yin, 2018).

Sample Selection Process

A gatekeeper facilitated my access to each of the three institutions. The gatekeeper's role is important for acquiring access to the research site and identifying potential study participants (Creswell & Guetterman, 2019). One way to facilitate access into an organization is by utilizing gatekeepers known to the researcher through informal networks (Andoh-Arthur, 2019). Therefore, the gatekeepers at each institution in my study were librarians from my professional network. Gatekeepers can have positions of authority within the organization or be a member of the study population (Andoh-Arthur, 2019). My gatekeepers all have roles as department heads or supervisors within their organizations, but these positions are not necessarily overseeing all of the teaching librarians within their organization. Additionally, gatekeepers do more than provide access to the research site; they have the ability to influence the research by their actions (Andoh-Arthur, 2019). The role of the gatekeeper is essential for determining the teaching librarians within each institution. However, care must be taken to ensure that the gatekeeper communicates accurately about the purpose and benefits of the research and that potential participants decide for themselves to participate in the research (Singh & Wassenaar, 2016).

The individuals eligible to participate in this research study are teaching librarians at each of the three institutions. RRU has approximately 57 librarians, NRU has approximately 40 librarians, and MRU has approximately 58 librarians. Out of the population of librarians at each

site, only librarians who have teaching interactions with undergraduate students were eligible for my study. Participants were recruited via email invitation until the sample population at each institution reached four, for a total of 13 participants across all three institutions.

Data Collection

Multiple methods are used to collect data for case studies including interviews and document analysis (Yin, 2018). The use of multiple data collection methods is a characteristic of a case study (Yin, 2018). As teaching philosophies are not easy to articulate, the multiple methods of collecting data will allow for triangulation of the data. This case study uses two data collection methods: individual interviews and documents related to the library's instruction program. Throughout my data collection, I also maintained a journal for field notes and reflections on my data collection.

Individual interviews "permit participants to describe detailed personal information" (Creswell & Guetterman, 2019, p. 218) and "resemble guided conversations" (Yin, 2018, p. 118). A teaching librarian's teaching philosophy is a personal statement, so the interview data collection method provided an in-depth description of a librarian's personal beliefs. Prior to the interview, I asked participants to complete an online questionnaire to collect demographic data. I conducted semi-structured interviews with individuals via the online video conferencing platform, Zoom. The interviews were guided by an interview protocol, and all interviews were recorded and transcribed using Zoom.

"For case study research, the most important use of documentation is to corroborate and augment evidence from other sources" (Yin, 2018, p. 115). Therefore, two types of documents were collected. The first group of documents were related to the library's instruction program. The websites of each of the libraries was analyzed to provide context about the institution and

the library's instruction program. I also collected internal documents describing the instruction program's mission and goals from interview participants. Second, interview participants were asked to share their written teaching philosophy statements if they had one.

Instrument Interview Protocol Design

A semi-structured interview protocol using open-ended questions guided the one-on-one interviews (Appendix A). Open-ended questions allowed the participant to provide extended responses, and the semi-structured interview format allowed me as the interviewer to ask probing questions to seek additional information. The open-ended questions were asked in a specific sequence. The interview protocol started with an icebreaker question to "relax the interviewees and motivate them to talk" (Creswell & Guetterman, 2019, p. 226). The other questions in the interview protocol were related to the study's research questions and constructs identified from the prior literature.

Questions focused on the teaching librarian's beliefs about teaching, beliefs about learning, and teaching methods. More specifically, prior research has demonstrated some of the aspects that can influence a teaching librarian's beliefs about teaching and learning: the institutional context (e.g., Austin & Bhandol, 2013; Davis et al., 2011; Julien & Pecoskie, 2009; Nichols Hess, 2019), a librarian's teaching identity (Walter, 2008), a librarian's teaching role (Wheeler & McKinney, 2015), influence of professional documents (Latham et al., 2019), librarian's knowledge of teaching and learning theory (Bewick & Corral, 2010), and beliefs about the nature of information literacy (Lavigne & Dalal, 2014). These constructs from prior research guided the question development for the interview protocol.

Data Analysis Approach

The interview data, documents, and field notes were analyzed in conjunction with the data collection (Merriam, 1998). My approach to the data analysis was guided by Creswell and Poth's (2018) "data analysis spiral" and Lincoln and Guba's (1985) processing of data for naturalistic inquiry. The data analysis spiral follows this process: *managing and organizing the data, reading and memoing emergent ideas, describing and classifying codes into themes, developing and assessing interpretations, and representing and visualizing the data* (Creswell & Poth, 2018, p. 187). To develop the themes, I started by assigning words or phrases to sections of the document text (Creswell & Guetterman, 2019). The sections of the document text are the units, the "smallest piece of information about something that can stand by itself" (Lincoln & Guba, 1985, p. 345). As units were identified, they were compared to existing categories to determine if they fit with an existing category or should create a new category (Lincoln & Guba, 1985). Then, I worked to "reduce the overlap and redundancy of codes" and "collapse codes into themes" (Creswell & Guetterman, 2019, p. 244). This involves evaluating if categories should be merged as well as looking for connections between categories (Lincoln & Guba, 1985). Themes were determined first within each of the three cases (Creswell & Poth, 2018; Yin, 2018). Then, the themes were compared across the cases, focusing on the similarities and the differences between the cases (Creswell & Poth, 2018; Yin, 2018).

Researcher Positionality

In qualitative research, I, as the researcher, am the instrument for collecting and analyzing the data (Merriam, 1998). Therefore, my familiarity with the research topic influenced how I asked questions as well as interpreted and reported my findings. I am a teaching librarian with faculty status at a public doctoral university in Texas. I have my own beliefs and opinions

about teaching and learning within the academic library context. Although my institution is not part of the sample population, I am a member of this teaching librarian professional community.

Study Limitations

This research study has several limitations. First, the study population is limited to teaching librarians at doctoral universities in Texas. Each academic library has its own organizational structure. In doctoral universities, multiple departments might have librarian positions that have teaching responsibilities, whereas at smaller university libraries all teaching librarians might be in the same department. Additionally, smaller academic libraries might not have the same specialized roles related to instruction found at doctoral universities. Second, subject librarians with teaching responsibilities can serve a particular discipline or have a background in a subject (e.g., business librarians have business degrees). Although one's discipline can influence a teaching philosophy, identification with a discipline outside of LIS was not considered for an individual's eligibility to participate in this study.

Roadmap for the Dissertation

Teaching librarians are educators within the higher education environment. Yet, little research has examined the ways that teaching librarians conceptualize their teaching philosophies in regard to undergraduate learners. Integral parts of a teaching philosophy include beliefs about learning, beliefs about teaching, and how these beliefs influence decisions about teaching methods. Understanding librarian teaching philosophies can help shape professional development opportunities and further establish a librarian's instructional role within a university. In order to contribute to this gap, this dissertation contains three interrelated research articles using a qualitative case study to explore how teaching librarians at doctoral universities in Texas conceptualize their teaching philosophies.

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PAPER 1: AN EXPLORATION OF ACADEMIC TEACHING LIBRARIANS' BELIEFS
ABOUT UNDERGRADUATE TEACHING AT DOCTORAL UNIVERSITIES IN TEXAS

Introduction

Academic teaching librarians teach undergraduate students in group, one-on-one, in-person, and online settings. Their beliefs about teaching guide how they construct, frame, and assess these instructional interactions (Skott, 2014). Teaching librarians have an important role in teaching undergraduates (Brecher & Klipfel, 2014; Rapple, 1997), and many instruction librarians do see teaching as a core part of their professional identity (Julien & Genuis, 2011). However, not all teaching librarians see themselves as teachers (Mattson, Kirker, Oberlies, & Byrd, 2017; Wheeler & McKinney, 2015). Even if librarians do not consider themselves a teacher, they have some beliefs about teaching that guide what they do in the classroom. In one-hour sessions, semester long courses, or individual research consultations a teaching librarian's teaching beliefs guide the interaction, yet little research has focused on how librarians conceptualize their beliefs about teaching (Houtman, 2019). A clearer understanding of librarian's teaching beliefs is essential to enhancing student learning and furthering the role of teaching librarians as educators through professional development, research, and outreach.

In this paper, I operationally define beliefs as the subjective and affective perspectives that an individual thinks are true, whether or not the perspectives are based on fact (Lavigne & Dalal, 2014; Vartuli, 2016). A teaching librarian's beliefs about teaching are one of the core components of their teaching philosophy, which is either stated or un-stated principles that guide a teacher's actions in instructional interactions. Teaching beliefs are "ideas on how teachers can facilitate the learning process" (Chism, 1998, p. 2). These ideas include personal definitions and views of teaching as well as what teaching looks like in one's particular context (Schönwetter,

Sokal, Friesen, & Taylor, 2002). Beliefs about teaching include personal assumptions about teaching, “the meaning of teaching in my context,” and one’s “personal view of post-secondary teaching” (Schönwetter et al., 2002, p. 89).

Two influences of beliefs are relevant when considering the beliefs librarians have about teaching: context and education. Context is an important consideration when studying teaching librarians’ roles and identities as it shapes how teaching is viewed, interactions with non-library faculty, and the teaching opportunities for librarians (Austin & Bhandol, 2013; Davis, Lundstrom, & Martin, 2011; Julien & Pecoskie, 2009). Formal education and training contribute to a teacher’s beliefs (Levin, 2014), but librarians are not systematically trained to teach during their graduate education. While library instruction courses in American Library Association (ALA) accredited library and information science (LIS) programs are becoming more common (Miller, 2016), many librarians do not have formal coursework about teaching. Librarians are taught about instruction in their professional positions, at conferences or workshops, and through self-directed learning (Albrecht & Baron, 2002; Bryan, 2016; Cull, 2005; Julien & Genuis, 2011; Westbrook & Fabian, 2010). For librarians to fully contribute to student learning, institutional mission statements, and library learning outcomes, it is important to understand how librarians think about teaching within their library’s context.

Guiding documents in the profession promote conceptualizations of teaching. For example, the Association of College and Research Libraries’ *Roles and Strengths of Teaching Librarians* (2017) provides a conceptualization of the teacher role that states, “The teacher employs a learner-centered approach, encouraging learners to be agents in their own learning.” Examining the beliefs that librarians have about teaching is important for understanding if the ideas about teaching proposed by professional organizations align with librarians’ beliefs.

The purpose of this study is to explore teaching librarians' beliefs about teaching undergraduate students. Additional research focusing on the teaching beliefs that guide librarians' interactions with students can enhance our understanding of the strengths and limitations of current research, of professional development activities, and of the profession's guiding documents. The research question guiding this qualitative study is: How do teaching librarians at Texas doctoral universities describe their beliefs about undergraduate teaching? In order to answer this research question, I used a qualitative case study research design. This study is part of a larger dissertation research study that explored teaching librarians' teaching philosophies.

Literature Review

Further study of teaching librarians' beliefs about teaching is grounded in prior research on librarians' teaching roles and on librarians' teaching identities. Research in these two areas has explored librarians' feelings toward teaching and how librarians conceptualize their teaching identities. This literature review will focus on these two research areas.

Teaching Role of Librarians

Studies investigating the teaching role of librarians focus on how librarians feel about their role as a teacher or act when they engage directly with learners. Relationships with non-library faculty influence how librarians feel about their teaching role (Julien & Pecoskie, 2009). Additionally, feelings of inequality between librarians' teaching and non-library faculty's teaching can lead to anxiety about their teaching role (Davis, 2007). Even after participating in professional development related to teaching, some librarians still resisted the teaching role despite changing their perspectives about the act of teaching (Austin & Bhandol, 2013).

One of the seminal studies of librarian teaching roles is Wheeler and McKinney's (2015) work. Focusing on the beliefs of six librarians in the United Kingdom, Wheeler and McKinney (2015) found librarians conceptualize their teaching role in four ways: *teacher-librarian*, *learning support*, *librarian who teaches*, and *trainer*. *Teacher-librarians* viewed their work as equal to other faculty. *Learning support* librarians saw themselves as teachers, but placed caveats around teaching, like having short interactions with students, that separate them from other faculty. A *librarian who teaches* has other parts of the librarian role equal or more important than teaching. A *trainer* does not feel they have the knowledge necessary to be a teacher and uses a skills-based approach.

Teaching Identities of Librarians

While a librarian's teaching role and teaching identity are often intertwined (Austin & Bhandol, 2013; Wheeler & McKinney, 2015), teaching identity examines an "individual's self-perception" (Nichols Hess, 2019, p. 54) or "the way in which your work as and sense of being a librarian shapes how you think about and experience a new teaching role" (Austin & Bhandol, 2013, p. 22). The identity of a teaching librarian has multiple contradicting components that can be challenging to integrate, including subject librarian, guest speaker, and faculty member (Mattson et al., 2017).

Although multiple studies have explored librarians' teaching identities (e.g., Davis et al., 2011; Julien & Genuis, 2011; Mattson et al., 2017), these studies tend to focus on the external factors that influence a librarian's self-perceptions. Thus, providing limited exploration of the librarians' teaching beliefs. Walter (2008) identified five themes related to teaching identity: *the centrality of teaching*, *the importance of collegial and administrative support*, *the stress of multiple demands*, *the problems with professional education*, and *stereotypes and*

misperceptions. Three out of these five themes focus on the institutional context. Other studies have suggested that the type of instruction that a teaching librarian provides influences how strongly they relate to a teacher identity or the positive feeling they have about teaching (Davis et al., 2011; Grigas, Fedosejevaitė, & Mierzecka, 2016).

Studies on the teaching role and teacher identity of librarians provide some insights into the beliefs librarians hold about teaching. First, the way librarians view themselves as educators influences their beliefs about teaching and their teaching practices. One study found that after participants began to view themselves as educators, their beliefs about teaching shifted from teacher-centered to more student-centered (Nichols Hess, 2018a). Additionally, librarians reported that the way they identified as an educator changed their teaching practices, and through the act of implementing those revised teaching practices, their beliefs about their role as an educator also changed (Nichols Hess, 2018b). Second, librarians have a student-centered approach to teaching (Cull, 2005; Mattson et al., 2017). Third, students should be active participants in learning through active learning and opportunities to take control of their learning (Cull, 2005; Mattson et al., 2017). Finally, beliefs about information literacy being either a skill or a way of thinking influenced how librarians viewed the teaching role (Wheeler & McKinney, 2015). Since teaching beliefs were not the primary focus of these earlier studies and some of these insights were gleaned from example quotations provided by the authors, the exact articulation of teaching librarians' beliefs about teaching is unclear. Therefore, this study aims to explore the beliefs about teaching held by librarians in doctoral universities with very high research activity.

Methodology

Data Sources: Institutional Selection

This study was part of a larger dissertation case study that examined the teaching philosophies of teaching librarians at three doctoral universities in Texas. The issue under investigation in this study was teaching librarians' beliefs about teaching. The context of R1 doctoral universities with very high research activity (Carnegie Classification of Institutions of Higher Education, 2018) in Texas created the bounded system for my case study.

The institutional cases were selected using homogeneous sampling, where all institutions had a similar characteristic (Creswell & Guetterman, 2019). Each institution is a public R1 doctoral university in Texas where teaching librarians have faculty status or ranks within the library similar to faculty (e.g., assistant librarian, associate librarian, librarian). Based on the research topic (Yin, 2018), three cases were included in this research: Regional Research University (RRU), Northern Research University (NRU), and Metropolitan Research University (MRU).

Sample Selection Process

I utilized gatekeepers from my professional network to facilitate access into each university library. Gatekeepers can have positions of authority within the organization or be a member of the study population (Andoh-Arthur, 2019). The role of the gatekeeper was essential for determining the teaching librarians within each institution.

The individuals eligible to participate in this research study were teaching librarians at each of the three universities. RRU has approximately 57 librarians, NRU has approximately 40 librarians, and MRU has approximately 58 librarians. Out of the population of librarians at each university, only librarians who have teaching interactions with undergraduate students were

eligible for my study. Email invitations to participate in the study were sent to all librarians in the departments identified by the gatekeeper as having instruction responsibilities. I continued to send email reminders and utilize snowball sampling until four participants were recruited from each institution. After signing an electronic informed consent form, participants filled out a demographic questionnaire and scheduled an interview.

Interview Protocol Design

A semi-structured interview protocol using open-ended questions guided the one-on-one interviews (see Appendix A). Open-ended questions allowed the participant to provide extended responses, and the semi-structured interview format allowed me as the interviewer to ask questions to seek additional information. The open-ended questions were asked in a specific sequence. Questions focused on the teaching librarian's beliefs about teaching. For example, "How would you describe your role as a teacher for undergraduates?" The interview protocol was pilot tested with teaching librarian colleagues at my institution.

Interview Data Collection Process

I conducted semi-structured interviews with individuals via the online video conferencing platform, Zoom. Interviews were conducted virtually in October 2020 due to the COVID-19 pandemic and restrictions on in-person research activities. The audio of the interviews was recorded and transcribed using Zoom. In addition, when available, interviewees shared their written teaching philosophy statements. Documents, like written teaching philosophy statements, can be used "to corroborate and augment evidence from other sources" (Yin, 2018, p. 115). Only two of the 13 participants had written teaching philosophy statements, so the teaching philosophy statements were not used to triangulate the data collected from the interviews.

Research Design

I used a qualitative case study research design for this study. Specifically, I employed Creswell and Poth's (2018) definition of case study research: "a qualitative approach in which the investigator explores a real-life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information" (p. 96). One key assumption of qualitative research is that individuals construct their own reality, and that reality is not static (Merriam, 1998). Yin (2018) describes an approach to case study research that is rooted in the positivist paradigm, but states that the design of case studies described in his book can be utilized in a paradigm with multiple realities. I referred to Yin's (2018) approach to case study research but made modifications as necessary to fit the assumptions of the qualitative paradigm. For example, demonstrating the generalizability of a case study's results is one of Yin's (2018) criteria for evaluating the quality of the research design. Since qualitative research does not aim to create generalizable results, this research quality criteria was not used. By using a case study research design, I explored teaching librarians' beliefs about teaching within the unique context of their university and more specifically their library.

Data Analysis

My approach to the data analysis was guided by Creswell and Poth's (2018) "data analysis spiral" and Lincoln and Guba's (1985) processing of data for naturalistic inquiry. The interview data analysis spiral followed this process: *managing and organizing the data, reading and memoing emergent ideas, describing and classifying codes into themes, developing and assessing interpretations, and representing and visualizing the data* (Creswell & Poth, 2018, p. 187). To develop the themes, I started by assigning words or phrases to sections of the document

text (Creswell & Guetterman, 2019). Themes were determined first within each of the three cases (Creswell & Poth, 2018; Yin, 2018). Then, the themes were compared across the cases, focusing on the similarities and the differences between the cases (Creswell & Poth, 2018; Yin, 2018).

Researcher Positionality

In qualitative research, I, as the researcher, am the instrument for collecting and analyzing the data (Merriam, 1998). I am a teaching librarian with faculty status at a doctoral university in Texas. Although my institution is not part of the sample population, I am a member of the teaching librarian professional community. Therefore, my familiarity with the research topic influenced how I asked questions as well as my interpretation of the findings. I have my own beliefs and opinions about teaching and learning within the academic library context. To bracket my beliefs, I kept a journal with notes and reflections throughout the data collection and data analysis. I also engaged in peer debriefing with my dissertation committee chair about the themes that emerged from the data.

Description of Participants

I collected data from 13 participants (four from RRU, four from NRU, and five from MRU). Participants were given the opportunity to choose their pseudonym. If a participant did not choose a pseudonym, I chose one for them. Participants' experience as academic librarians ranged from 1.5 years to 21 years. Participants embraced a range of teaching roles from teacher librarians to trainers (Wheeler & McKinney, 2015) as well as a range of teaching identities, as not all participants fully embraced a teaching identity. Appendix B shows detailed participant demographic information.

Description of Institutions

Descriptions of each institution were produced from multiple data sources: public

institutional websites, demographic questionnaires, documents provided by participants, and interviews with the participants. The websites of each of the institutions were analyzed for information about the library's instruction program. During the interviews, participants described the instructional culture at their library, and some participants mentioned internal documents that guided their work as teaching librarians. When internal documents were mentioned, I asked if the participant would share the document with me.

At RRU, subject librarians are the primary library instructors, and teaching and learning is one of the components of subject librarian responsibilities. One-time instruction tied to a course, workshops, research consultations, and reference interactions are the primary teaching interactions. Two participants mentioned co-teaching with faculty outside of the libraries. Teaching librarians at RRU have autonomy in how they want to teach, and there is some internal professional development related to teaching.

At NRU, some teaching librarians teach a credit course in addition to research consultations, one-time sessions tied to a course, workshops, and reference interactions. All participants had experience teaching a credit course either at NRU or another university. One participant mentioned co-teaching with faculty outside of the libraries. While a dedicated library instruction group sets the outcomes for the credit course, all library instructors have the freedom to teach how they would like. Teaching at NRU is respected by the administration.

MRU has a strong instruction culture. MRU has a dedicated instruction team, departmental teaching philosophy, and instruction program learning outcomes. Liaison librarians, who also teach, feel supported by the instruction team. Primary teaching opportunities are one-time sessions tied to a course, workshops not tied to a course, research consultations, and

reference interactions, and the institution serves a diverse student population. One participant mentioned co-teaching with faculty outside of the libraries.

Findings

I developed themes related to how teaching librarians described their teaching beliefs. The teaching librarians in this study believed that focusing on the learner is integral to how teaching librarians can facilitate undergraduate learning. The three primary beliefs that emerged from the data were a) the belief in the importance of understanding students' unique learning needs, b) the belief in the importance of understanding students' affective dimensions of learning, and c) the belief in the importance of respecting the knowledge and experiences students bring to the teaching interaction. Together these three beliefs highlight the need for teaching librarians to consider the unique aspects that each learner brings to the teaching interaction.

Belief in the Importance of Understanding Students' Unique Learning Needs

Teaching librarians believed that understanding that each learner has different needs is the essential starting point for determining what content is taught and what methods are used to teach the content. Needs were an individualized conception of where a student is at and what a student should be presented with in order to complete an assignment or find information. This theme was common across all three of the institutions. Sarah at NRU contrasted her current belief with her prior experiences as a learner by stating,

I feel like sometimes we had taught where you're going to meet the professor where they're at. And I'm really trying to make my classroom and my teaching practices meeting the student where they're at.

Learner needs could be inferred directly from the learner, assumed based on the teacher's experiences, or shared by the instructor requesting the instruction session. Considering how undergraduates may approach information literacy and libraries differently than graduate students was one aspect of understanding learner needs. For example, Valerie at NRU acknowledged these student differences by stating,

We know our undergraduates want different things from the library than graduate students do. And so I think that I did try to make things more practical and maybe even talking about the library as a place and what is here in the building for them, more than I would for graduate students.

By starting with the understanding that each learner has different types of needs, teaching librarians could then build supports throughout the instruction to allow students to meet their full potential. Olivia at MRU noted, "trying to give them as many options as possible, so that they can go through the activity in a way that is comfortable for them." This theme demonstrates that teaching librarians believe each learner has different needs, the teacher's role is to understand the learner's needs, and teaching practices should be aligned with the needs of learners.

Belief in the Importance of Understanding Students' Affective Dimensions of Learning

Teaching librarians also believed that they can facilitate the learning process by being aware of students' emotions and working with students to overcome emotions that could be detrimental to learning. Beliefs related to this theme were present at all three institutions; however, this belief was discussed more often by participants from MRU. Rene from MRU discussed understanding the barriers that students face when finding information by describing her role in one-on-one consultations with students:

I felt like sometimes this kind of interaction is to help them to sort of clear their mind, to take the fear away, because research for them...psychologically they feel they have a barrier... like, oh, that's some kind of special person who can do research, I cannot. So, I feel like that's one of my roles.

The belief of being aware of students' emotions also manifested itself by being mindful of what students are feeling and paying attention to nonverbal cues that reflect students' emotions. Elizabeth at RRU described how her actions reflect this belief as follows, "I always approached my students from a state of mindfulness. So, when I'm in a classroom or when I'm working with them in a one-on-one consultation, I try to be mindful and compassionate about where they're coming from."

Another aspect of this theme spoke to being aware of one specific student emotion: confidence. Teaching librarians believed that they could build students' confidence in finding information and using libraries. This confidence building could occur through encouraging students. Nicole from MRU described, "I try to encourage them to feel positive about the fact that they took the step to ask and that knowing when to ask for expert help is a part of becoming a stronger researcher."

This theme shows how teaching librarians believed part of their role as teachers is to acknowledge students' emotions and work with students to overcome negative emotions. Through working past negative emotions and building students' confidence, teaching librarians felt they could help students learn.

Belief in the Importance of Respecting the Knowledge Students Bring to the Teaching Interaction

Teaching librarians believed that students bring knowledge and experiences to instructional interactions and their teaching should be respectful of students' knowledge and experience. This belief is distinct from understanding the needs of learners. This theme is about recognizing the knowledge that learners bring to every interaction and keeping this belief central when interacting with learners or designing lesson plans. Teaching beliefs related to this theme were held by librarians at all three universities, but this belief was held most prevalently at MRU.

Teaching librarians respected learners' knowledge through their interactions with learners. As Edgar from RRU described, "I think most students, whatever level, appreciate being treated with respect and even if they're unsure of their abilities...they want to know that you respect their efforts and their knowledge." Teaching librarians also realized that the personal experiences learners have with information creation and information evaluation might not be from the academic context. Instead, these experiences from daily life could be posting to social media or buying a car.

Respecting the knowledge of learners meant engaging the knowledge students already possess and allowing students to share the authority that they have in their own realm. This might mean giving up the idea that as a teacher you know more than the learner. Elle from MRU explained, "Respecting that students might know more than I do on a topic and allowing them the space to bring in their knowledge and share it with others." Part of the teacher's role was to help the learner see the knowledge that they already possess. Olivia from MRU gave the following description:

The important thing is that the students feel empowered and that they're aware that they do come with knowledge and pre-existing experience that is meaningful and that we're just trying to kind of help them build off of that, so that they can do their best work.

By respecting the knowledge that learners bring to the teaching interaction, teaching librarians could help learners begin to connect the knowledge they already possess with the information literacy skills they will need to be successful academically. In addition to framing the information literacy content, this belief illustrated how teaching librarians provided opportunities for students to share their knowledge during the teaching interaction.

Discussion

The findings of this study show that the core teaching beliefs described by teaching librarians at doctoral institutions were centered around the importance of understanding the learner. Through their beliefs in understanding students' unique learning needs, understanding students' affective dimensions of learning, and respecting the knowledge that students bring, teaching librarians facilitated student learning. Participants in this study embraced a spectrum of teaching identities. Some participants viewed themselves as more educators than librarians, while other participants did not feel their instruction role shaped their librarian identity. The prevalence of these beliefs across different teaching identities is important as the strength of one's teaching identity did not hinder the belief that as a teaching librarian you need to understand the learner.

The three themes identified illustrated that the teaching librarians across different institutions believed in understanding the learner, which is a core principle of student-centered teaching (Klipfel & Cook, 2017; Weimer, 2013). Klipfel and Cook (2017) in their book *Learner-Centered Pedagogy* advance the idea of centering the learner in library instruction by stating,

“We must seek to understand how our learners are, in a deep psychological sense, before we can understand how best to assist them in the research process” (p. 3). Interestingly, learner-centered teaching is not considered an educational theory or teaching philosophy, but rather an “approach to teaching” (Weimer, 2013, p. vii). The role of the teacher changes as students are more involved in learning activities, learn from other students, and are guided to learn on their own (Weimer, 2013).

The findings of this study advance research on student-centered teaching by showing that understanding the learner is a concept that guides all teaching librarian interactions with students. Although student-centered teaching can be inferred from some LIS research, recent books (Kaplowitz, 2012; Klipfel & Cook, 2017) and journal articles (Bond, 2016; Houtman, 2015; Megwalu, 2014; Woxland, Cochran, Davis, & Lundstrom, 2017) have explicitly explored the idea of student-centered teaching within libraries. The two books that focus on learner-centered teaching within librarianship both take the concept and apply it to information literacy (Kaplowitz, 2012; Klipfel & Cook, 2017). Multiple examples shared by librarians in relation to learner-centered teaching involve students choosing research topics of interest to them (Klipfel, 2014, 2015; Megwalu, 2014). While these articles provide examples of how librarians are conceptualizing and applying student-centered practices, they are limited as they do not provide a holistic view of teaching approaches that inform any teaching-learning interaction.

The beliefs articulated by teaching librarians in this study align with the ACRL *Roles and Strengths of Teaching Librarians* (2017) conceptualization of the teacher role, which emphasizes a “learner-centered approach” to library instruction. Participants in this study applied this approach through their articulation of beliefs related to understanding the learner, although no participant mentioned the *Roles and Strengths of Teaching Librarians* document specifically.

This conceptualization is important as it shows that the beliefs of teaching librarians do align with this guiding professional document.

This study confirms the prior literature about librarians' focus on the students. Cull (2005) and Mattson et al. (2017) found that librarians take a student-centered approach to their teaching. Yearwood, Foasberg, and Rosenberg (2015) discovered that librarians in one university system wanted to make both consultations and instruction sessions meet student needs, which illustrates the acceptance of a student-centered approach without use of the phrase. These studies also found that librarians believed that the one-on-one individual consultation offered the best place to meet student needs (Cull, 2005; Yearwood et al., 2015). The analysis of beliefs presented in this study did not separate out beliefs between consultations, guest lectures, and workshops in order to understand holistically what librarians believe about teaching. However, participants from all three institutions did acknowledge that understanding learners' unique needs is easier to do in one-on-one consultations than in instruction sessions.

Librarians are taught how to conduct a reference interview in order to determine what information a user needs. While the reference interview is a technique that could apply to research consultations, which typically have one person or a small group of students, it would be difficult to implement in instruction sessions with multiple students. While librarians may be meeting the needs of users during reference interactions, maintaining and implementing this belief in a classroom will look different. Therefore, the teaching beliefs identified in this study are more aligned with the concept of student-centered teaching, than the idea of a reference interview.

This study's finding that teaching librarians believed in the importance of understanding students' emotions demonstrates that teaching librarians continue to acknowledge the role that

affective dimensions have on learning. Since Mellon's (1986) theory of library anxiety, librarians have been aware of the emotions that students bring when faced with using libraries. While the original theory of library anxiety was focused on the use of the library, a more recent conference paper (Bernardo, 2019) discusses student anxiety in the current cultural environment and proposes ways librarians' teaching practices can be modified to lessen student anxiety. In all teaching contexts, the participants of this study worked to understand and acknowledge students' feelings.

Understanding students' affective emotions and respecting the knowledge that students bring were the two beliefs that were more prevalent at MRU. This difference between the institutions in terms of strength of the belief could be due to the stronger instructional culture at MRU. This finding connects with prior literature that found characteristics of the institutional context influence librarians' teaching identities (Walter, 2008). Davis et al. (2011) found that librarians who taught for-credit courses identified more with a teacher identity. NRU was the only institution with a for-credit course, and none of the three themes related to understanding the learner were most prevalent at NRU. This suggests that while teaching a for-credit course influences a librarian's teaching identity, factors other than the type of instruction might have a stronger influence on a librarian's teaching beliefs. The difference in the prevalence of beliefs between the institutions in this study suggests that environmental culture might be a stronger influence on teaching beliefs than the type of instruction in which a teaching librarian participates.

Teaching beliefs about understanding the learner guided all teaching librarians' instructional interactions with students. Understanding the learner included learning about and acknowledging the learners' needs, emotions, and experiences. These beliefs align with a

student-centered approach and demonstrate the most important aspects to know about a learner in order to create teaching interactions that are truly student-centered.

Limitations and Future Directions

Describing beliefs about teaching is a challenging task. In the data analysis, the beliefs that librarians held were not always stated directly, but rather needed to be inferred based on how the participants described their teaching practices. This study acknowledged only the institutional environment as an influence on teaching librarians' beliefs, and due to the focus on the research question did not describe other influences identified in the data. Future research should explore other contexts beyond the R1 doctoral university as well as libraries with different instruction cultures. Second, subject librarians with teaching responsibilities can serve a particular discipline or have a background in a subject (e.g., business librarians have business degrees). Although one's discipline can influence a teaching philosophy, identification with a discipline outside of LIS was not considered for an individual's eligibility to participate in this study. Finally, this study relied on teaching librarians' beliefs as they described them without any observation of teaching practices. Future studies should explore how these beliefs manifest themselves in teaching interactions.

Conclusion

Viewing teaching librarians' beliefs about teaching in terms of understanding the uniqueness of the learner provides multiple considerations for professional development of teaching librarians. First, as the institutional environment played a role in teaching librarians' beliefs, professional development opportunities at the institution-level should understand the library's instructional culture. Second, professional development aimed at a wider audience should consider the belief in understanding the learner as the starting point for continued

development as a teacher. More specifically, professional development opportunities could focus on strategies that teaching librarians can use to understand the unique needs of learners, as library teaching opportunities are frequently short interactions, as well as how to incorporate the knowledge and experiences of learners authentically in a teaching interaction. Additionally, opportunities could help teaching librarians learn more about the affective dimensions of learning and how emotions play a role in learning.

Teaching librarians at Texas doctoral universities believe in the importance of understanding the learner. Three themes are core components of this belief: understanding students' unique learning needs, understanding students' affective dimensions of learning, and respecting the knowledge that students bring to the teaching interaction. These beliefs demonstrate that teaching librarians integrated the fundamental aspects of student-centered teaching into their teaching interactions with students.

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PAPER 2: BEYOND INFORMATION LITERACY: DISCOVERING HOW ACADEMIC TEACHING LIBRARIANS DESCRIBE UNDERGRADUATE STUDENTS' LEARNING

Introduction

Academic teaching librarians are educators in their university environments (Brecher & Klipfel, 2014). As educators, teaching librarians help students learn information literacy concepts and critical thinking skills. Yet, teaching librarians often lack formal knowledge of the student learning process, which can make it challenging for them to support student learning effectively (Bewick & Corral, 2010; Brecher & Klipfel, 2014). An instructor's view of the learning process influences not only teaching, but also how students themselves learn (Trigwell, Prosser, & Waterhouse, 1999; Tynjälä, 1997). For teaching librarians to fully contribute to student learning, a shared understanding of what teaching librarians believe about how students learn is needed.

Many librarians do not acknowledge that their instruction is based on a teaching or learning theory (Montgomery, 2015). Interestingly, the assessment of a training on adult learning theory found that some participants realized as a result of the training that they already used adult learning theory in their instruction (Malik, 2016). A similar finding about librarian's implicit knowledge occurred in a study examining critical information literacy practices; "their inability to define and explain their library pedagogies, drawing on theoretical concepts, is problematic, and reveals these practitioners' knowledge is exhibited as procedural knowledge" (Schachter, 2020, p. 136). These studies illustrate the challenge teaching librarians have realizing how the work they do aligns with existing learning theories. Thus, more research is needed to understand how librarians define and explain their beliefs about student learning.

Understanding teaching librarians' beliefs about learning is important as the ACRL (2016) *Framework for Information Literacy for Higher Education (Framework)* is based on a

particular learning theory, threshold concepts (Meyer, Land, & Baillie, 2010), as well as influenced by backward design (Wiggins & McTighe, 2005) and metaliteracy (Mackey & Jacobson, 2014). Meyer and Land (2003) describe threshold concepts “as akin to a portal, opening up a new and previously inaccessible way of thinking about something. It represents a transformed way of understanding, or interpreting, or viewing something without which the learner cannot progress” (p. 1). The *Framework* was designed to be a document that creates a common view of information literacy instruction within the academic librarian profession and to move the profession forward in thinking about teaching information literacy. However, the underlying theoretical basis of the *Framework* has been debated (e.g., Bombaro, 2016; Wilkinson, 2014). Of particular importance is the idea that threshold concepts are incongruent with the outcomes-based assessment popular in library instruction literature (Bombaro, 2016). Exploring teaching librarians’ beliefs about learning will offer insight into how the *Framework* aligns with librarians’ beliefs.

Over the past 30 years, the focus of higher education has shifted from what is taught in college to what students learn during their college experience (Barr & Tagg, 1995), and this shift has influenced teaching librarians as well. Student learning can be broadly defined as developmental change (Fink, 2013). This change can be a change in the neural networks of the brain (Zull, 2002), in one’s understanding (Hargreaves, 1996), or in one’s knowledge, beliefs, actions, or attitudes (Ambrose, Bridges, DiPietro, Lovett, & Norman, 2010; Caffarella & O’Donnell, 1987; Packer & Goicoechea, 2000). Learning is part of holistic student development and is influenced by all areas of the student development process (e.g., intellectual, social identity, psychosocial, moral development, self-authorship) (Ambrose et al., 2010; Baxter Magolda, 2006; Patton, Renn, Guido, & Quaye, 2016). The operational definition of learning

used in this paper will be a process that results in a change in a student's knowledge, attitudes, or beliefs.

Beliefs held about the learning process are one component of a teaching philosophy (Chism, 1998; Schönwetter, Sokal, Friesen, & Taylor, 2002). Beliefs about learning include personal assumptions about learning, “understandings of how students learn,” and “discussion of learning parameters (styles, diversity, difficulties)” (Schönwetter et al., 2002, p. 89). Beliefs about learning guide all teaching interactions, including instruction sessions, research consultations, and reference interactions. Some conceptions of student learning “are intuitive and based on experiential learning, rather than on a consciously articulated theory” (Chism, 1998, p. 1). Thus, the examination of librarian beliefs about student learning is important because these beliefs might not be congruent with learning theories or research about student learning.

The purpose of this study is to explore teaching librarians' beliefs about how undergraduate students learn in any teaching interaction. This is important as many teaching librarians do not have formal education about learning theories (Brecher & Klipfel, 2014; Namaganda, 2020). Additionally, the exploration of teaching librarians' beliefs about learning will create a shared understanding within the profession about how librarians' beliefs about learning align with the theories advanced by the *Framework*. The research question guiding this study is: How do teaching librarians at Texas doctoral universities describe their beliefs about how undergraduate students learn?

This study is part of a larger dissertation research study that used a qualitative case study design to explore the teaching philosophies of teaching librarians at doctoral institutions. The focus of this study is on one aspect of a teaching philosophy: librarians' beliefs about how students learn.

Literature Review

This study is guided by previous research on teaching librarians' preparation for teaching, the application of learning theories in library and information science (LIS) research, and on how librarians think about the *Framework*. These three topics will be the focus of the literature review.

Developing Knowledge of Learning Theories

Most librarians do not learn about teaching and learning in their LIS master's programs (Bryan, 2016; Julien & Genuis, 2011). Instead, they learn how to teach through on-the-job training, conference attendance, and self-directed learning (Bryan, 2016; Julien & Genuis, 2011; Westbrook & Fabian, 2010). Looking deeper at what librarians know about teaching practices, Bewick and Corral (2010) found most participants felt comfortable with their level of pedagogical knowledge, but knowledge of teaching and learning theories and instructional design emerged as two areas where librarians had the least amount of competence. Other studies have confirmed librarians' lack of knowledge about learning theories (Namaganda, 2020). This lack of understanding of learning theories can make it challenging for librarians to contribute to student learning (Brecher & Klipfel, 2014).

To address this gap in knowledge, there are programs and discussions within the profession about how to develop librarians' competencies in pedagogy, including learning theory. Individual libraries have developed librarians' knowledge of adult learning theory through internal training programs (Malik, 2016). Professional development programs, like the Library Instruction Leadership Academy and PedSkills, include content about teaching and learning theory (Davies-Hoffman, Alvarez, Costello, & Emerson, 2013; Namaganda, 2020). Self-directed learning methods and resources are also described as a way for librarians to learn

about how students learn (Brecher & Klipfel, 2014). The programs and advice in this area support Schachter's (2020) statement that "librarians are being encouraged to seek a greater understanding of theories that inform practices" (p. 139). The available literature demonstrates a range of opportunities available for librarians to deepen their understanding of teaching and learning theory as well as a recent emphasis on connecting theory to practice.

Application of Learning Theory

Multiple articles have discussed learning theories and described how the theories could be applied to library instruction (e.g., Li, 2007; McNeer, 1991; Sanderson, 2011). Theories discussed include cognitive development theories (McNeer, 1991), behaviorism (Johnson, 2007), constructivism (Johnson, 2007), sociocultural learning (Li, 2007), learning styles (Sanderson, 2011), Cambourne's theory of learning (Masuchika & Boldt, 2012), and connectivism (Transue, 2013). However, there are scant discussions about how learning theories integrate with one-shot instruction sessions (Masuchika & Boldt, 2012). Some librarians have described how they intentionally applied learning theories to instruction (Ha & Verishagen, 2015) or online tutorial development (Halpern & Tucker, 2015). Others have explored how librarians use adult learning theory when teaching (Gilstrap, 2013). These recent studies show that there is movement from developing awareness of learning theories to showing how learning theory can guide instruction.

Understanding how learning occurs is essential for studying how students learn information literacy and the role that librarians play in student learning. Despite the early articulation of the role of librarians in the student learning process (e.g., Allan, 2000; Macadam, 2000; Wilkinson, 2000), only a few recent studies have looked deeper at the student learning process. Studies have looked at the student learning process in information literacy modules embedded in an online course (Russo, 2016) and an activity for finding an item in the library

(Dempsey & Jagman, 2016). Other studies examined the process of learning throughout an entire research paper (Dubicki, 2015) and thesis (Schaus & Snyder, 2018). Academic librarian researchers used studies of the learning process to show that students can translate library use to other contexts if students reflect on their learning process (Dempsey & Jagman, 2016), that prior experiences serve as a starting point for learning (Dubicki, 2015), and that there are certain areas where students struggle with learning during the research process (Schaus & Snyder, 2018). While all of these conclusions are important in academic librarian practice, the concept of the learning process articulated in these articles is still vaguely defined. Only Russo's (2016) study and analysis of student discussions is based on a published learning process framework. These studies show that a few researchers are considering the larger process of learning, not just the outcomes and acquisition of skills.

The *Framework* and Learning Theories

How the *Framework* and the idea of threshold concepts connect with teaching librarians' teaching philosophies is an unexplored research area. Research about the *Framework* has explored topics such as how librarians feel about the *Framework* in relation to their teaching (Gross, Latham, & Julien, 2018), librarians' preparations for implementing the *Framework* (Charles, 2017), the teaching strategies librarians use to implement the *Framework* (Latham, Gross, & Julien, 2019), and how librarians can learn about the *Framework* (Nichols Hess, 2015). These studies focused their inquiry on the *Framework*, rather than the broader beliefs teaching librarians hold about student learning.

While some librarians have questioned the application of learning theory in the *Framework* (e.g., Bombaro, 2016; Malik, 2016), other librarians see the *Framework* as a way to advance the knowledge and understanding of theory. Schachter (2020) sees the *Framework* as

one way the profession has been integrating theory into practice. Malik (2016) suggests that the *Framework* could be a catalyst for advancing the discussions of learning theory in relation to information literacy. Because of the importance of the *Framework* to the profession, it is possible that the *Framework* has influenced teaching librarians' beliefs about learning, but more research is needed to explore this connection.

This literature review demonstrates that librarians' perceptions of how students learn have not been fully explored. Exploration of teaching librarians' beliefs about learning is critical because the *Framework*, a guiding document in the profession, is based on a particular learning theory. Additionally, many librarians do not have formal learning experiences related to learning theory, so there is no assumed knowledge base when it comes to how learning occurs. Therefore, this study aims to address these gaps by exploring what beliefs teaching librarians hold in regards to undergraduate student learning.

Methodology

Data Sources: Institutional Selection

This study was part of a larger dissertation case study that examined the teaching philosophies of teaching librarians at three doctoral universities in Texas. This study investigates teaching librarians' beliefs about learning. The institutional cases were selected using homogeneous sampling, where all sites have a similar characteristic (Creswell & Guetterman, 2019). The Carnegie Classification of Institutions of Higher Education (2018) classifies doctoral universities with very high research activity as R1. Each case is a R1 public university in Texas where teaching librarians have faculty status or ranks within the library similar to faculty (e.g., assistant librarian, associate librarian, librarian). The number of cases to include is a decision made by the researcher based on the topic (Yin, 2018). Three cases were included in this

research: Regional Research University (RRU), Northern Research University (NRU), and Metropolitan Research University (MRU).

Sample Selection Process

I utilized gatekeepers from my professional network to facilitate access into each university. Gatekeepers can have positions of authority within the organization or be a member of the study population (Andoh-Arthur, 2019). The gatekeeper was essential for determining the teaching librarians within each institution.

The individuals eligible to participate in this research study were teaching librarians at each of the three institutions. RRU has approximately 57 librarians, NRU has approximately 40 librarians, and MRU has approximately 58 librarians. Out of the population of librarians at each institution, only librarians who had teaching interactions with undergraduate students were eligible for my study. Email invitations to participate in the study were sent to all librarians in the departments identified by the gatekeeper as having instruction responsibilities. I continued to send email reminders and utilize snowball sampling until at least four participants were recruited from each institution. After signing an electronic informed consent form, participants filled out a demographic questionnaire and scheduled an interview.

Interview Protocol Design

A semi-structured interview protocol using open-ended questions guided the one-on-one interviews (Appendix A). Open-ended questions allowed the participant to provide extended responses, and the semi-structured interview format allowed me as the interviewer to ask questions to seek additional information. The open-ended questions were asked in a specific sequence. The questions focused on the teaching librarians' beliefs about learning. For example,

“How would you describe how undergraduate students learn best?” The interview protocol was refined through pilot testing with teaching librarian colleagues at my institution.

Interview Data Collection Process

I conducted semi-structured interviews with individuals via the online video conferencing platform, Zoom. Individual interviews “permit participants to describe detailed personal information” (Creswell & Guetterman, 2019, p. 218) and “resemble guided conversations” (Yin, 2018, p. 118). Interviews were conducted virtually in October 2020 due to the COVID-19 pandemic and restrictions on in-person research activities. The audio of the interviews was recorded and transcribed using Zoom. In addition, when available, participants shared their written teaching philosophy statements. Documents, like teaching philosophy statements, can be used “to corroborate and augment evidence from other sources” (Yin, 2018, p. 115). Only two of the 13 participants had written teaching philosophy statements, so the teaching philosophy statements were not used to triangulate the data collected from the interviews.

Qualitative Research Design

I used a qualitative case study research design. Specifically, I employed Creswell and Poth’s (2018) definition of case study research: “a qualitative approach in which the investigator explores a real-life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information” (p. 96). One key assumption of qualitative research is that individuals construct their own reality, and that reality is not static (Merriam, 1998). Yin (2018) describes an approach to case study research that is rooted in the positivist paradigm, but states that the design of case studies described in his book can be utilized in a paradigm with multiple realities. I referred to Yin’s (2018) approach to case study research but made modifications as necessary to fit the

assumptions of the qualitative paradigm. By using a case study research design, I explored teaching librarians' beliefs about learning within the unique context of their library.

Data Analysis Approach

My approach to the data analysis was guided by Creswell and Poth's (2018) "data analysis spiral" and Lincoln and Guba's (1985) processing of data for naturalistic inquiry. The interview data analysis spiral followed this process: *managing and organizing the data, reading and memoing emergent ideas, describing and classifying codes into themes, developing and assessing interpretations, and representing and visualizing the data* (Creswell & Poth, 2018, p. 187). To develop the themes, I started by assigning words or phrases to sections of the document text (Creswell & Guetterman, 2019). Themes were determined first within each of the three cases (Creswell & Poth, 2018; Yin, 2018). Then, the themes were compared across the cases, focusing on the similarities and the differences between the cases (Creswell & Poth, 2018; Yin, 2018).

Researcher Positionality

In qualitative research, I, as the researcher, am the instrument for collecting and analyzing the data (Merriam, 1998). I am a teaching librarian with faculty status at a doctoral university in Texas. My institution is not part of the sample population, but I am a member of this teaching librarian professional community. Therefore, my familiarity with the research topic influenced how I asked questions as well as my interpretation of the findings. I have my own beliefs and opinions about teaching and learning within the academic library context. To bracket my beliefs, I kept a journal with notes and reflections on the data collection and data analysis. I also used peer debriefing with my committee chair to discuss the themes that emerged from the data.

Study Limitations

This research study has several limitations. First, the study population is limited to teaching librarians at R1 universities in Texas. Each academic library has its own organizational structure. In R1 universities, multiple departments might have librarian positions with teaching responsibilities, whereas at smaller university libraries all teaching librarians might be in the same department. Second, subject librarians with teaching responsibilities can serve a particular discipline or have a background in a subject (e.g., business librarians have business degrees). Although one's discipline can influence a teaching philosophy, identification with a discipline outside of LIS was not considered for an individual's eligibility to participate in this study.

Description of Participants and Institutions

For this study, I collected data from 13 participants (four from RRU, four from NRU, and five from MRU). Participants' experience as academic librarians ranged from 1.5 years to 21 years. Participants in this study embraced a range of teaching roles from teacher librarians to trainers (Wheeler & McKinney, 2015) as well as a range of teaching identities, as not all participants fully embraced a teaching identity. Appendix B shows detailed participant demographic information.

Descriptions of each institution were produced from multiple data sources: public institutional websites, demographic questionnaires, documents provided by participants, and interviews with the participants. The websites of each of the institutions were analyzed for information about the library's instruction program. During the interviews, participants described the instructional culture at their library, and some participants mentioned internal documents that guided their work as teaching librarians. When internal documents were mentioned, I asked if the participant could share the document with me.

At RRU, subject librarians are the primary instructors, and teaching and learning is one of the components of subject librarian responsibilities. One-time instruction tied to a course, workshops, research consultations, and reference interactions are the primary teaching interactions. Two participants mentioned co-teaching with faculty outside the libraries. Teaching librarians at RRU have autonomy in how they want to teach, and there is some internal professional development related to teaching.

At NRU, some teaching librarians teach a credit course in addition to research consultations, one-time sessions tied to a course, workshops, and reference interactions. All participants had experience teaching a credit course either at NRU or another university. While a dedicated library instruction group sets the outcomes for the credit course, all library instructors have the freedom to teach how they would like. Teaching at NRU is respected by the administration.

MRU has a strong instruction culture. MRU has a dedicated instruction team, departmental teaching philosophy, and instruction program learning outcomes. Liaison librarians feel supported by the instruction team. Primary teaching opportunities are one-time sessions tied to a course, workshops not tied to a course, research consultations, and reference interactions, and the institution serves a diverse student population.

Findings

Teaching librarians hold beliefs about the characteristics of student learning, how the learning process occurs, and what learner needs should be met to facilitate learning. These beliefs align with three themes that emerged from my interviews with teaching librarians across the three institutions. First, teaching librarians discussed that undergraduate students learn in a variety of ways. Second, they believed that the learning process entails students interacting with

others, students doing something, and student reflection. Finally, in order to learn, participants mentioned that students need to see the applicability of the content and have their emotional needs met. While participants were able to describe their beliefs about how learning occurs, some participants struggled with knowing how their teaching contributes to student learning, since they primarily teach one-time library instruction sessions to a classroom of students.

The literature review highlighted two important aspects related to librarians and student learning: lack of librarian knowledge of learning theories and the role of the *Framework* in influencing librarians' beliefs about learning. Therefore, I will briefly describe the learning theories and thoughts on threshold concepts discussed by the participants.

Undergraduate Students Learn in a Variety of Ways

Participants believed that there was not a single best way for students to learn; all students have certain learning preferences. Participants at all three institutions held this belief. Anne at RRU stated, "I would say there is not a one size fits all." Olivia at MRU also stated, "there's no one best way, I think is the thing to remember." Elle from MRU stated, "So trying to think about different ways of learning ... and how people learn."

Another aspect of this theme was the idea that students have different learning preferences. Some participants, particularly at NRU, referred to the idea of learning styles. For example, Regina described the learning styles quizzes she uses with her students: "We do learning styles quizzes, you know, mark this and then circle, and you're one of these four learning styles. Overwhelmingly, they are audio visual and then the second one's kinesthetic." At RRU, Elizabeth's beliefs about the ways students learn were influenced by Richard Elmore's Modes of Learning:

Trying to have as many of those components is how you're going to get the best organic learning experience for a class because each student will learn differently, so ... there's not one way that you can teach students and hope that they learn. So, you have to provide these different modes.

These narratives provide a nuanced understanding of how the teaching librarians discuss the different ways students learn. The narratives suggest that the participants are realizing aspects of student learning practices that differ from their own.

Undergraduate Students' Actions in the Learning Process

Teaching librarians believed that students need to do three things to learn: interact with others, do something hands-on, and reflect. These three aspects were discussed separately, not as a sequence of actions. These beliefs were present among the librarians at all three institutions.

Undergraduate Students Learn by Interacting with Others

Teaching librarians believed that students learn by interacting with their peers and their instructor. Librarians across all three institutions discussed this belief. As Valerie from NRU stated, "I really do think that the more the students can be actively talking either to peers or to the instructor the better." This interaction could occur through discussions, asking questions, or when working together on a group activity. Kate from MRU pointed out her belief that not only does the action facilitate learning but also the chemicals released by the action. She stated, "I think we retain knowledge best when, you know, we have those like feel good chemicals coursing through our veins and we get those through social interaction."

Undergraduate Students Learn by Doing

Teaching librarians believed that learners must do something in order to learn. They asserted that being talked at or simply watching a video was not enough for students to learn the

content. More specifically some participants mentioned that learners need independent practice or to work on the activities on their own. Engaging in activities frequently related to having a hands-on component in the instruction session in order to facilitate learning. Elizabeth from RRU mentioned this when talking about using databases:

I think with learning how to use databases, because it's such a kinetic skill, you have to work through it. You can't just watch someone access a database and then expect your students to remember how to do it a week later or something like that.

The belief that students learn through doing was also shown through statements comparing active learning to lecture methods. For example, while discussing the challenge of integrating a student-centered approach in online videos, Elle from MRU reflected on the research that shows the importance of not relying on lecture:

It was part of my beliefs that it was important to try and to give what I could towards that, with the idea that I think, based on the research I've seen, students learn better when they are learning in that series of non-lecture based methods.

Undergraduate Students Learn through Reflection

Teaching librarians believed that students need to take time to reflect on their learning. Only some participants from RRU, NRU, and MRU acknowledged the role of reflection in the learning process. Valerie from NRU described reflection in terms of how students answer questions, “I think that having students write a more reflective type response to questions instead of again either just sitting and listening or just verbalizing it with one of their peers.” Specifically, from MRU, Kate’s statement sums up this belief, “we also try not to burn students out, like activity after activity after activity with no real sit and think time.”

This theme shows the actions that librarians believe students should do in order to learn. Interacting with others, having a hands-on activity, or reflecting are the actions that librarians described contribute to student learning. While all participants discussed interaction or hands-on activities, only a few participants at each institution discussed the role of reflection in the learning process.

Undergraduate Students' Conditions for Learning

Teaching librarians believed that particular conditions must be in place for students to learn. They felt that students need to see the applicability of the content as well as feel emotionally ready to learn. While the beliefs of the applicability of content and feeling ready to learn were present at all three institutions, both were more prevalent at MRU.

Undergraduate Students Learn When See Applicability of Content

Teaching librarians believed that students learn by connecting with the content. Connecting with the content can happen in a variety of ways. First, students learn by connecting information literacy concepts to their prior knowledge and experiences. One way this can happen is by connecting content to real world experiences. Additionally, learning occurs by building from the knowledge that learners already possess. The participants at MRU believed in activating students' prior knowledge as a way to initiate the learning process. For example, Olivia stated,

the important thing is that the students feel empowered and that they're aware that they do come with knowledge and pre-existing experience that is meaningful and that we're just trying to kind of help them build off of that, so that they can do their best work.

Second, students learn when they understand why it is important to understand the content or see how the content could be useful to them in the long term. Kate explained that it is

“easier for anybody to learn if they could see why that learning is going to be useful to them or is going to impact them in positive ways further down the road.”

Undergraduate Students Learn When Emotional Needs Are Met

Teaching librarians believed that students have to be in the right emotional state and feel comfortable in the learning situation in order to learn. Rene, from MRU, described the idea that learners need to be ready to learn. Other participants described learners needing to feel supported. For example, Edgar from RRU stated, “they want someone they can trust to ask questions or get advice from without feeling inhibited or feeling, you know, like they're not allowed to ask those sorts of questions.”

Another emotional need that influences learning discussed by the teaching librarians was students feeling like they are part of the process. As Sarah from NRU stated, “I really think undergraduates learn best when they feel like they're part of the lesson that we're not just preaching at them, or just lecturing at them.” Participants from MRU described how when learners are actively participating, learners feel empowered in their learning and learn better.

Articulated Learning Theories

Teaching librarian participants did mention theories or instructional design methods that influenced their beliefs about student learning. These were not talked about consistently by all participants, and some participants discussed multiple learning theories. Participants mentioned several theories such as, constructivism, Richard Elmore’s Modes of Learning, universal design for learning, scholarship of teaching and learning, backward design (Wiggins & McTighe, 2005), USER (Understand, Structure, Engage and Reflect) instructional design method (Booth, 2011), andragogy, and pedagogy. Participants at RRU and NRU mentioned the idea of learning styles,

while one participant at MRU noted that the traditional visual, auditory, kinesthetic learning styles have been discredited.

The *Framework* and Student Learning

For the teaching librarian participants in this study, the conception of learning advanced by the threshold concepts articulated in the *Framework* did not influence their beliefs about student learning. In some cases, there was some resistance to the theory of threshold concepts from the participants. For example, Elle from MRU described,

The idea of threshold concepts never quite was as effective. So there's the frames and then there's the idea underlying it about threshold concepts, and that I think it's just too hard to measure in a one shot, so I've never really glommed on to that aspect, but I love the idea of some specific frames.

Participants viewed the *Framework* more as a document to guide what is taught than how learning occurs. Regina's appreciation that the *Framework* had a pedagogical basis shows her support of the *Framework*. She uses the *Framework* to guide her teaching and the development of learning outcomes. Teaching librarians from both NRU and MRU discussed that they used the *Framework* for developing student learning outcomes.

In addition to using the *Framework* to develop learning outcomes, participants also mentioned that the *Framework* influenced their conceptions of information literacy. Edgar from RRU described how the *Framework* moved information literacy from skills to concepts:

I think the *Framework* is primarily a conceptual model... rather than like a teaching rubric or a skills model. It's not as specific as that; it's really about understanding these big concepts. And I think the ideas are more important at least to me than the competencies.

Rene from MRU described a similar conception of information literacy by focusing on students' ways of thinking:

If we say we provide information literacy education, I think it's not, okay you have to do this, you should be able to do that. But, it would have a way of thinking. And we just follow some of these different areas to teach students a way of thinking and that's what I'm trying to do.

While the *Framework* did not influence the learning beliefs of the teaching librarians, the *Framework* did influence the learning outcomes of instruction sessions and how librarians conceptualize information literacy.

Discussion

Many of the participants in this study reported not having any formal training in teaching and learning, yet their espoused beliefs about learning align with certain learning theories (e.g., Fosnot & Perry, 1996; Kolb, Boyatzis, & Mainemelis, 2001) and the science of student learning (e.g., Ambrose et al., 2010; Zull, 2002). For example, the tasks of interacting with others, doing, and reflecting are demonstrated in the literature on learning. The ideas of discussion, activities, and reflection underlie constructivism (Fosnot & Perry, 1996). Kolb's experiential learning theory hypothesized a process of learning through experience, reflection, thought, and action (Kolb et al., 2001). Zull (2002) used neuroscience to describe how the different parts of the brain align with Kolb's experiential learning theory.

The beliefs about learners seeing the applicability of the content and having their emotional needs met also align with the science of learning. Learning must build on the learner's prior knowledge (Ambrose et al., 2010; Zull, 2002). In order for students to learn, instructors "must help them see how it matters in their lives" (Zull, 2002, p. 52). Making the learner part of

the learning process can help the learner feel more control over their learning, which facilitates learning (Zull, 2002).

The participants' beliefs about learning aligned with learning science and learning theories, but most of the articulated beliefs were not directly attributed to a learning theory. This finding is supported by Malik's (2016) finding that librarians did not realize they were already using principles of adult learning until after participating in a professional development program. Participation in professional development opportunities and self-directed learning could have influenced the knowledge of the participants in this study. However, this finding also revealed that while teaching librarians do not specifically attribute their learning beliefs to a theory, their learning beliefs are consistent with theories.

In reference to the different ways that learners learn, the term learning styles was used in different ways by the participants. Some participants used the term in the general sense to say that people learn differently. Sanderson (2011, p. 377) critiqued the use of this "colloquial" description of learning styles without critical examination of the underlying theory or assessments used to determine styles. Yet, the findings of this study show that librarians continue to use the colloquial version of the term student learning styles. While the idea of visual, auditory, kinesthetic (VAK) learning styles has been criticized (e.g., Pashler, McDaniel, Rohrer, & Bjork, 2008; Stahl, 1999; Willingham, Hughes, & Dobolyi, 2015), these styles still influenced the thinking of some of the participants at NRU. Librarians are not alone in VAK learning styles influencing their beliefs. A recent study of education professionals found that the VAK or visual-auditory-reading-kinesthetic (VARK) framework was one of the primary ways learning styles were conceptualized (Papadatou-Pastou, Touloumakos, Koutouveli, & Barrable, 2020). This

illustrates that a concept that is ubiquitous in education, yet not proven empirically, has also influenced librarians.

Participants did not see the *Framework* as guiding the way they think about student learning. Rather the *Framework* is about what and how librarians teach, in other words the move from skills to concepts, rather than how librarians think about the learning process. This adds new light to the debates surrounding the use of the theory of threshold concepts (e.g., Bombaro, 2016; Wilkinson, 2014), as librarians are using the *Framework* to develop learning outcomes, not for describing how students become information literate. Participants in this study did not reveal that they are thinking more critically about learning theory with the advent of the *Framework*, as prior authors had hoped (Malik, 2016; Schachter, 2020). These findings suggest that while the *Framework* has influenced how librarians think about and teach information literacy, the document has had a limited influence on how teaching librarians think about the learning process.

Recommendations for Practice

The results of this study lead to several recommendations for improving teaching librarian's teaching practices. First, professional development workshops are needed to connect the intuition many librarians use to guide their beliefs about learning to learning theories. This study and prior studies (Malik, 2016) have shown that librarians' beliefs do align with learning theories, but librarians have to be made aware of learning theories to realize it. Showing librarians the connections between their beliefs and theories could help develop a librarian's confidence about their knowledge of teaching and learning. Second, professional development workshops need to consider the theory of threshold concepts articulated in the *Framework* separate from the implementation of the *Framework* into practice. This study found that the

Framework had more of an impact in moving teaching librarians' thinking of information literacy from skills to concepts, than in influencing librarians' views about how students learn information literacy. Finally, teaching librarians should continue to develop LIS specific learning theories and pedagogies. While there has been some work in this area (e.g., Elmborg, 2002, 2006; Hinchliffe, Rand, & Collier, 2018; Keba & Fairall, 2020), additional work is needed to link the ways learners become information literate with the types of contexts in which teaching librarians teach.

Conclusion

Teaching librarians in this study believed that students learn in different ways; that students need to interact with others, act, and reflect; and that students learn when certain conditions are met. Teaching librarians do not describe their beliefs about learning as articulated theories, but their beliefs do seem to align with theories of student learning. Interestingly, for the participants, the *Framework* is not a guiding document for how they think about learning, rather it is a document that guides how they think about student learning outcomes. Despite the lack of consistent training for the teaching role, teaching librarians have picked up ideas about learning that have influenced their beliefs about how undergraduate students learn.

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PAPER 3: CONNECTING THE DOTS: HOW TEACHING LIBRARIANS' BELIEFS ABOUT
TEACHING AND LEARNING INFLUENCE TEACHING METHODS

Introduction

Teaching librarians employ a variety of methods to facilitate student learning in various settings such as one-time sessions, research consultations, workshops, and semester-long courses. Teaching methods are frequently discussed in library and information science (LIS) literature. Studies have examined the types of teaching methods librarians utilize and shown that teaching methods have changed over time (e.g., Julien, 2000; Julien, Gross, & Latham, 2018; Polkinghorne & Julien, 2018). Fewer studies have explored what guides teaching librarians' instructional decisions (e.g., Cull, 2005; Galoozis, 2019). One researcher stated that there is still a need for more research examining “voices, emotions, and processes of ILI [information literacy instruction] librarians” (Galoozis, 2019, p. 1043), which indicates that the motivation behind a teaching librarian's decision to use a particular teaching method has not been fully explored. There is an “interactive relationship among knowledge, beliefs, attitudes and their associated [classroom] practices” (Lavigne & Dalal, 2014, p. 808). Therefore, exploring the connection between a teaching librarian's beliefs about teaching and learning and their choice of teaching methods is one avenue to use to explore what guides a teaching librarian's instructional decisions.

A deeper understanding of what guides teaching librarians' instructional decisions is critical to further developing academic librarians' contributions to student learning and broader institutional goals related to student educational experiences. Although teaching librarians are educators (Brecher & Klipfel, 2014), librarians have different interpretations of their role as teachers, ranging from equal with other academic faculty who teach at one end of the spectrum

to a provider of skills training at the other end (Wheeler & McKinney, 2015). When librarians began to view themselves as an educator, they changed their teaching methods (Nichols Hess, 2018). Additionally, librarians primarily learn about teaching on the job, through self-directed learning, and from professional development opportunities (Albrecht & Baron, 2002; Bryan, 2016; Cull, 2005; Julien & Genuis, 2011; Westbrook & Fabian, 2010). Instructional design is one area that teaching librarians feel the least knowledgeable about (Bewick & Corral, 2010; Bryan, 2016). The contradictions librarians hold about their teaching role and identity as well as the disjointed landscape of building their knowledge about teaching illustrates the importance of examining why teaching librarians choose to use certain teaching methods.

Environmental factors also influence the implementation of teaching methods. This includes rapport with non-library faculty (Julien & Pecoskie, 2009), type of instructional setting (Davis, Lundstrom, & Martin, 2011), and professional development opportunities (Hays & Studebaker, 2019). Many librarians teach one-time instruction sessions where there is limited time to implement different teaching methods. Additionally, the demands or wishes of the requesting faculty member may influence how the librarian decides to teach. For example, Scott (2016) describes a personal experience of providing a database demonstration as requested by a faculty member and making sure the session aligned with Scott's goal of developing students' ability to evaluate sources. While librarians have beliefs about teaching and learning, other factors beyond their control might overshadow the implementation of teaching methods that align with their beliefs.

Elements of a teaching philosophy include beliefs about teaching, beliefs about learning, the relationship between the learner and the teacher, the content taught, teaching methods, the classroom environment, assessment, evaluation, outcomes, and professional development

(Chism, 1998; Goodyear & Allchin, 1998; Schönwetter, Sokal, Friesen, & Taylor, 2002). Beliefs about teaching and beliefs about learning are core elements of a teaching philosophy. The focus of this paper is on what Chism (1998) describes as the “implementation of the philosophy,” how a teaching librarian’s beliefs about teaching and learning are put into practice. When describing how the philosophy is implemented, teachers discuss the methods they use to teach particular content, how their class is designed, how student learning is assessed, and the teacher’s “personal skills and strengths” (Chism, 1998; Schönwetter et al., 2002, p. 89).

This study investigated how beliefs about teaching and learning inform the teaching methods that teaching librarians use in their interactions with undergraduate students. While there are multiple aspects to how teaching and learning beliefs are put into practice, this paper will focus on teaching librarians’ descriptions of the methods used as well as how their class is designed. The research question guiding this study is: How do teaching librarians at Texas doctoral universities describe how their beliefs about teaching and learning inform the teaching methods that they use with undergraduate students?

This study is part of a larger dissertation research study that explored the teaching philosophies of teaching librarians at doctoral universities. The larger study explored two aspects of teaching librarians’ teaching philosophies: beliefs about teaching and beliefs about learning. Teaching librarians’ beliefs about teaching included consideration of the unique aspects that each learner brings to the teaching interaction, particularly understanding students’ unique learning needs, students’ affective dimensions of learning, and respecting the knowledge and experience students bring to the teaching interaction. Teaching librarians’ beliefs about learning included undergraduates learn in a variety of ways; the learning process entails students interacting with others, students doing something, and student reflection; and in order to learn, students need to

see the applicability of the content and have their emotional needs met. The next stage of the inquiry is to understand how these first two concepts shape the teaching methods that teaching librarians use. A discussion of the literature focused on teaching methods used by teaching librarians follows.

Literature Review

The scope of literature about teaching methods suggests that teaching librarians want to have practical advice for implementing new ideas in their instruction. Some broad topics addressed in the instruction literature include descriptions of methods used in instruction sessions (e.g., Julien, 2000; Julien et al., 2018; Whitver & Lo, 2017), examples and advice on how to implement methods (e.g., Beilin & Leonard, 2013; Reale, 2017), and assessment of the effectiveness of methods (e.g., Detlor, Booker, Serenko, & Julien, 2012; Dolničar, Podgornik, & Bartol, 2017; Hsieh, Dawson, Hofmann, Titus, & Carlin, 2014). Not only are all these areas too large to adequately address in this literature review, but also none of these topics provide a broader understanding of why teaching librarians are using particular methods. Therefore, the focus of this literature review will be on studies examining how teaching librarians make decisions about which teaching methods they use.

Rationale Behind Teaching Librarians' Choice of Methods

Relatively few studies have explored why teaching librarians incorporate certain teaching methods in their instruction. Through interviews with Canadian instruction librarians, Cull (2005) found instruction librarians stated that they did not have much knowledge of pedagogy, yet they described different methods they utilized that showed an understanding of learner needs, like having handouts, providing group learning, and including interactive elements. Participants

also discussed using active learning techniques because of beliefs about the importance of involving students and being flexible in the classroom to meet student needs (Cull, 2005).

Some researchers have explored how librarians are incorporating critical information literacy in their instruction, including the methods they use in the classroom (Schachter, 2020; Tewell, 2016). Tewell (2016) interviewed 13 librarians and presented descriptions of the methods librarians used to incorporate critical information literacy in their instruction. Tewell's work is important because the interviews allowed participants to explain how their teaching methods aligned with critical information literacy in their own words. Schachter (2020) surveyed and conducted follow-up interviews with Canadian librarians about their critical information literacy pedagogy. Schachter (2020) reported examples of how librarians are applying critical information literacy in their teaching through the description of the concepts they address. While these two studies are important, they only focused on the use of critical information literacy rather than a broader perspective of teaching and learning.

Researchers are also considering the influence of affective dimensions on a teaching librarians' practice. Galoozis (2019, p. 1042) found that "feedback from students and colleagues, time to reflect, and the ability to set significant emotionally connected goals" influenced teaching librarians' decisions to modify their teaching methods. When librarians began to view themselves as an educator, they had a more student-centered approach to their teaching practices, utilized more active learning, and incorporated technology into instruction (Nichols Hess, 2018). These two studies illustrate that the motivation to use particular teaching methods can be external or internal.

Student-Centered Teaching Methods

Teaching methods that align with student-centered teaching include discussion,

collaborative group work, and reflection (Kaplowitz, 2012). However, there is a gap in determining the influence of the student-centered teaching approach on teaching librarian instructional practices. Literature using the exact phrase of “learner-centered teaching” or “student-centered teaching” is limited. These concepts could be embedded within articles focusing on other aspects of learner-centeredness, like teaching methods and learning theories. Librarians have explored active learning (e.g., Detlor et al., 2012; Harrington & Libby, 2016; Khailova, 2017; Richards, Bladdek, & Okamoto, 2018), reflective practice in the classroom (e.g., Bordonaro & Richardson, 2004; Macdonald, 2009), and discussion in the classroom (e.g., Loo, 2013; Whitver & Lo, 2017). While all of these activities have elements that could be considered student-centered teaching, the authors’ limited discussions of what informed these activities makes it unclear how beliefs related to student-centered teaching informed their development.

Prior research suggests that teaching librarians rely on professional development or external forces (e.g., student feedback) to guide their choice of teaching methods. The research is limited on how internal beliefs shape teaching methods. Therefore, this study extends the aforementioned studies by exploring how teaching and learning beliefs influence teaching librarians’ choices to use particular teaching methods.

Methodology

Data Sources: Institutional Selection

This collective case study (Creswell & Poth, 2018) examined the teaching philosophies of teaching librarians at three doctoral universities in Texas. The issue under investigation in this study is how teaching librarians’ beliefs about teaching and learning influence their teaching methods. The Carnegie Classification of Institutions of Higher Education (2018) classifies

doctoral universities with very high research activity as R1. The context of an R1 university in Texas creates a bounded system for my case study.

The institutional cases were selected using homogeneous sampling, where all institutions have a similar characteristic (Creswell & Guetterman, 2019). Each case is an R1 public university in Texas where teaching librarians have faculty status or ranks within the library similar to faculty (e.g., assistant librarian, associate librarian, librarian). The pseudonyms of the three institutions in this case study are: Regional Research University (RRU), Northern Research University (NRU), and Metropolitan Research University (MRU).

Sample Selection Process

Gatekeepers known to the researcher through informal networks are one way to facilitate access into an organization (Andoh-Arthur, 2019). Therefore, the gatekeepers at each institution were librarians from my professional network. The role of the gatekeeper was essential for determining the teaching librarians within each institution.

The individuals eligible to participate in this research study were teaching librarians at each of the three institutions. RRU has approximately 57 librarians, NRU has approximately 40 librarians, and MRU has approximately 58 librarians. Out of the population of librarians at each institution, only librarians who have teaching interactions with undergraduate students were eligible for my study. Email invitations were sent to all librarians in the departments identified by the gatekeeper as having instruction responsibilities. I continued to send email reminders and utilize snowball sampling until at least four participants were recruited from each institution. After signing an electronic informed consent form, participants filled out a demographic questionnaire and scheduled an interview.

Interview Protocol Design

A semi-structured interview protocol using open-ended questions guided the one-on-one interviews (see Appendix A). Open-ended questions allowed the participant to provide extended responses, and the semi-structured interview format allowed me as the interviewer to ask probing questions to seek additional information. The open-ended questions were asked in a specific sequence. The questions focused on the teaching librarian's teaching methods. For example, "In your opinion, what are good teaching methods for teaching librarians to use? Why?" The interview protocol was pilot tested with teaching librarian colleagues at my institution.

Interview Data Collection Process

I conducted semi-structured interviews with individuals via the online video conferencing platform, Zoom. Interviews were conducted virtually in October 2020 due to the COVID-19 pandemic and restrictions on in-person research activities. The audio of the interviews was recorded and transcribed using Zoom. In addition, when available, interviewees shared their written teaching philosophy statements. Documents, like written teaching philosophy statements, can be used "to corroborate and augment evidence from other sources" (Yin, 2018, p. 115). Only two of the 13 participants had written teaching philosophy statements, so the teaching philosophy statements were not used to triangulate the data collected from the interviews.

Research Design

I used a qualitative case study research design. Specifically, I employed Creswell and Poth's (2018) definition of case study research: "a qualitative approach in which the investigator explores a real-life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information" (p. 96). One key assumption of qualitative research is that individuals construct their own reality,

and that reality is not static (Merriam, 1998). Yin (2018) describes an approach to case study research that is rooted in the positivist paradigm, but states that the design of case studies described in his book can be utilized in a paradigm with multiple realities. Therefore, I referred to Yin's (2018) approach to case study research but made modifications as necessary to fit the assumptions of the qualitative paradigm. By using a case study research design, I explored teaching librarians' teaching methods within the unique context of their respective institution and specifically their library.

Data Analysis Approach

My approach to the data analysis was guided by Creswell and Poth's (2018) "data analysis spiral" and Lincoln and Guba's (1985) processing of data for naturalistic inquiry. The interview data analysis spiral followed this process: *managing and organizing the data, reading and memoing emergent ideas, describing and classifying codes into themes, developing and assessing interpretations, and representing and visualizing the data* (Creswell & Poth, 2018, p. 187). To develop the themes, I started by assigning words or phrases to sections of the document text (Creswell & Guetterman, 2019). Themes were determined first within each of the three cases (Creswell & Poth, 2018; Yin, 2018). Then, the themes were compared across the cases, focusing on the similarities and the differences (Creswell & Poth, 2018; Yin, 2018).

Researcher Positionality

In qualitative research, I, as the researcher, am the instrument for collecting and analyzing the data (Merriam, 1998). I am a teaching librarian with faculty status at a doctoral university in Texas. My institution is not part of the sample population, but I am a member of the teaching librarian professional community. Therefore, my familiarity with the research topic influenced how I asked questions as well as my interpretation of the findings. To bracket my

beliefs, I kept a journal with notes and reflections on the data collection and data analysis. I also used peer debriefing with my dissertation committee chair about the themes that emerged from the data.

Description of Participants and Institutions

For this study, I collected data from 13 participants (four from RRU, four from NRU, and five from MRU). Participants' experience as academic librarians ranged from 1.5 years to 21 years. Participants embraced a range of teaching roles from teacher librarians to trainers (Wheeler & McKinney, 2015) as well as a range of teaching identities. Appendix B shows detailed participant demographic information.

Descriptions of each institution were produced from multiple data sources: public institutional websites, demographic questionnaires, documents provided by the participants, and interviews with the participants. The websites of each of the institutions were analyzed for information about the library's instruction program. During the interviews, participants described the instructional culture at their library, and some participants mentioned internal documents that guided their work as teaching librarians. When participants mentioned internal documents, I asked if they could share the document with me.

At RRU, subject librarians are the primary instructors, and teaching and learning is one of the components of subject librarian responsibilities. One-time instruction tied to a course, workshops, research consultations, and reference interactions are the primary teaching interactions. Two participants mentioned co-teaching with faculty outside the libraries. Teaching librarians at RRU have autonomy in how they want to teach, and there is some internal professional development related to teaching methods.

At NRU, some teaching librarians teach a credit course in addition to research consultations, one-time sessions tied to a course, workshops, and reference interactions. One participant mentioned co-teaching with faculty outside of the libraries. While a dedicated library instruction group sets the outcomes for the credit course, all library instructors have the freedom to teach how they would like. Teaching at NRU is respected by the administration.

MRU has a strong instruction culture. MRU has a dedicated instruction team, departmental teaching philosophy, and instruction program learning outcomes. Liaison librarians feel supported by the instruction team. The primary teaching opportunities are one-time sessions tied to a course, workshops not tied to a course, research consultations, and reference interactions, and the institution serves a diverse student population. One participant mentioned co-teaching with faculty outside of the libraries.

Findings

Teaching librarians used a variety of methods to design their teaching interactions to support student learning and success. Based on the analysis of the data across all three institutions, the teaching methods used aligned with three themes 1) engaging students in the teaching interaction, 2) connecting information literacy content to the real world, and 3) creating a supportive atmosphere.

Engaging Students in the Teaching Interaction

Teaching librarians engaged students in teaching interactions by developing hands-on activities for students to work on as well as providing opportunities for the students to shape the direction of the teaching interaction. One explanation for engaging students was related to the nature of the information literacy content. Nicole from MRU explained her use of active learning techniques by stating, “I think that people learn research by doing.” This method was used by

teaching librarians at all three institutions, and every participant had at least one quote related to this theme. While all participants described using active learning, participants at MRU most strongly believed in providing opportunities for learners to shape the teaching interaction.

Teaching librarians utilized a variety of hands-on activities in their teaching. The hands-on activities could be as simple as providing time for students to search in the databases on their own or to explore a topic of interest to them. Edgar from RRU described, “Let's explore a question that you want to ask, rather than something that's been assigned to you or something that I've given to you, you know, let them brainstorm. Let them try something different.” The hands-on activities could be more structured worksheets or games. Valerie from NRU described the active learning activities she developed with a colleague for a semester long course:

We would try to get the students out of their seats and do exercises or puzzles on the wall, or we would have them do think, pair, share activities and try to incorporate more games and a little bit more group activity.

This teaching method also applied to an online instruction format. In regard to teaching a semester-long library course online the past few semesters, Sarah from NRU stated,

I really liked that method, it really pushes my limits, making sure my teaching is very interactive because I like to do active learning style... if you're just in distance, you really have to work hard to be interactive on that platform.

Librarians at MRU also described including hands-on activities in asynchronous tutorials. Olivia from MRU described, “we really tried throughout the different modules to give options whenever possible for how to interact with some of the different activities.”

Teaching librarians engaged students in the teaching interaction through discussions, asking students questions, using platforms for students to contribute ideas anonymously, and

having students provide search terms or jointly develop evaluation criteria. For example, Kate from MRU described,

I might have an idea for bullet points that I think should come out of a discussion and I'll have those ready, but rather than present those to the group, we'll have a discussion and will hopefully tease out some of those bullet points with them talking with me and with each other.

Regina from NRU relied on students to provide search terms:

I also do open ended research, like we go into a database. And I say, 'Okay. What are y'all working on? Let's take a look.' I don't have any planned searches. I may have a little bit of backup just in case.

The teaching librarians in this study provided hands-on opportunities for students to work individually or with peers. They also used hands-on activities in both in-person and online instruction. A variety of methods were used to provide opportunities for students to contribute to the teaching interaction.

Connecting Information Literacy Content to the Real World

This theme described a teaching method of how the information literacy content is taught. Teaching librarians teach the content by using examples that are meaningful, demonstrating how information literacy plays a role in daily life, and sharing their personal experiences or struggles with research. While some of these techniques may overlap with active learning or involving students in the teaching interaction, the explicit attempt to link information literacy to what students understand is what distinguishes this theme. This theme was present at all three institutions but was most prevalent at NRU and MRU. Only one participant at RRU had any quotes related to this theme.

One way teaching librarians connected content to the real world was by using relevant examples or providing opportunities for students to consider real world activities that relate to finding and evaluating information. Lauren at NRU used real life scenarios related to copyright:

I actually created five or six different real-life scenarios that can happen. And they [students] would all have one and then they would have to decide, is this a copyright infringement or not and why is it not a copyright infringement.

Olivia at MRU described the real-life information gathering scenarios she uses with her students:

They have to buy a new phone and have to figure out what phone is the best for their needs, or they want to try a new restaurant and they want to figure out what has the best reviews, that sort of thing. And so, they have to answer some questions in the process of deciding how they would figure out the answer for the scenario.

Other ways teaching librarians helped students connect with the content were allowing students to share their experiences with the topic, showing how information literacy is related to the students' discipline, and describing the rationale behind assignments and content. Describing personal challenges was another teaching method used to connect students with the content. Kate at MRU described, "If something...seems to be especially challenging and I need them to know that it's normal for something for whatever thing it is to feel particularly challenging, I will relay that, and I'll talk about something I've struggled with."

The methods used to help students connect with the information literacy content were guided by different avenues that could be based on utilizing examples from real life or personal challenges. Through these different avenues, teaching librarians attempted to help students see that information literacy concepts are not only used for academic assignments and that even librarians can struggle with research.

Creating a Supportive Atmosphere

Teaching librarians worked to create an atmosphere or environment that supports learners. This atmosphere is developed both in instruction sessions as well as through one-on-one research consultations. Teaching librarians adjusted their methods based on perceived student needs, assessments that showed student needs, or asking questions to determine student needs. This method was used by participants at all institutions. Participants at RRU and MRU more frequently mentioned ideas related to this theme.

These teaching librarians worked to create a supportive environment through their attitudes, intentional actions, and being mindful of student needs. When a faculty member is not forthcoming about the students' assignment, Anne at RRU described, "I just focus on being really friendly and approachable." Elle from MRU stated, "I spend a lot of time thinking about and reading and learning about what makes for an inclusive classroom. And what...do I need to be doing to create a space in which every learner can learn equitably."

Teaching librarians also considered how the teaching methods that they use directly align with student learning preferences or needs. Kate from MRU succinctly described this theme as follows, "Being willing to adapt. Like if an activity is not working and...you've recognized it in the moment, being willing to say, 'you know what, let's try something else' and then just letting it go." This also means acknowledging students' emotional needs. Elizabeth from RRU described,

Students that come late into class or that seem distracted on their phones, I always try to be mindful about. Okay, they're distracted by something else or, you know, they were running late, so they're probably stressed, let's take a minute and kind of refocus and re-shift their attention back on the moment.

From some teaching librarians there was a feeling that this was easier to do in a one-on-one consultation, than in an instruction session with multiple students. Olivia from MRU explained,

One-on-one is that you can kind of tailor that experience based on where the student is at and what their question is...we are doing those group one shots, it's obviously a little harder to make sure you're addressing everyone's needs.

Another way teaching librarians provided support was by giving students handouts or supplementary materials to refer to after the session. Anne described how she sends an email after consultations with the information discussed. Kate from MRU described how she did this more after the COVID-19 pandemic:

If I use slides, send the slides but also send the results of any discussions that we had... screenshots of the word cloud, transcripts of what people submitted anonymously to our discussions. I just make sure that they have all that in case they need to refer back. When we can record, we record.

Teaching librarians had an awareness of how their attitudes and actions influenced the teaching interaction. Through their attitudes and the provision of supplementary resources for students to refer to after the session, teaching librarians worked to demonstrate that students had their support.

Discussion

The research literature provides some insights about the teaching experiences of teaching librarians, but less was known about how the beliefs of these instructors shaped their teaching methods. This research study explored the ways teaching librarians at Texas doctoral universities described how their beliefs about teaching and learning informed the teaching methods that they

used with undergraduate students. The narratives of these teaching librarians revealed three themes used to describe the teaching methods that teaching librarians utilized and how they aligned with the teaching and learning beliefs described by the librarians.

The findings suggest that participants in this study used active learning methods because they believed that in order to learn, students need to do something, interact with others, and have time to reflect. Active learning methods were also connected to teaching librarians' beliefs about research and database searching needing to have a hands-on component. Even one participant, who did not care for having students work in groups and primarily used lecture, did discuss giving students time to search the database on their own. The variety of active learning activities utilized by teaching librarians connects to beliefs about the unique aspects that learners bring to the teaching interaction. In order to try to meet as many students' needs as possible, teaching librarians worked to create different types of activities.

The method of connecting information literacy to the real world highlights how these teaching librarians used a pragmatic approach to guide how they teach undergraduates. The participants gave students a practical reason for becoming information literate, but also used real world examples to show students the knowledge that they already possess about evaluating and finding information. The use of this method suggests teaching librarians were focused on a long-term outcome, rather than simply helping students complete their class assignment. Teaching librarians wanted to lay a foundation to assist students with transferring information literacy to other contexts, particularly outside of the academic environment.

Teaching librarians in this study created a supportive learning environment as part of their methods. While this may suggest that teaching librarians rely on a customer service mindset to guide their teaching methods, the use of this method could also be due to the contexts in which

librarians teach. This method was more prevalent at RRU and MRU, where the primary teaching interactions were one-time instruction sessions and one-on-one research consultations. In contrast, NRU participants taught a semester-long course which allowed for multiple opportunities for librarians to build a relationship with students. This suggests that the reasons for creating a supportive environment may be twofold. First, the reason may be based on the belief that if learners feel supported in their work, learners will learn better. Second, since librarians primarily interact with students in a short time frame, teaching librarians felt the need to make sure students feel supported so that students are comfortable engaging in the classroom as well as reaching out to the librarian (or other library staff) if another information need arises. Since teaching librarians used active learning methods, the development of a supportive atmosphere was important as students needed to feel comfortable engaging in the teaching interaction.

While teaching librarians believed that it was important to tailor the teaching methods to the individual as part of creating a supportive learning environment, they felt that this was easier to do in one-on-one consultations rather than group instruction sessions. Other studies (e.g., Cull, 2005; Yearwood, Foasberg, & Rosenberg, 2015) have also found that librarians see one-on-one consultations as more student centered and a more effective method of learning, partly because it is easier to tailor the session to student needs. As the teaching librarians in this study were focused on student needs, these one-on-one sessions provided them with the space to focus specifically on what the student wanted to get from the consultation. However, as these consultations are centered on meeting the students' immediate need, librarians might not be consciously thinking about the teaching methods they are using.

The participants in this study and others in the profession (e.g., Green & Peach, 2003; Yi, 2003) have argued that one-on-one consultations are teaching interactions. Yet, when describing their beliefs, the participants still made a distinction between consultations and instruction sessions. This may be more of a reflection on the institutional culture and less about their beliefs about the consultation being a teaching interaction. The mindset of viewing a consultation as something distinct from an instruction session might contribute to the lack of awareness of the methods used during the consultations.

The findings of this study align with prior research that demonstrated environmental factors influence teaching librarians' teaching methods (e.g., Davis et al., 2011; Julien & Pecoskie, 2009). The differences in teaching methods found across the three institutions suggest that the library environment towards teaching influences the methods used by teaching librarians. Providing opportunities for students to shape the teaching interaction was most prevalent at MRU, which had a strong library instruction culture. The method of connecting information literacy content to the real world was commonly used at NRU and MRU. At NRU, teaching was highly valued by the administration and librarians also taught a semester-long information literacy course.

Overall, while the participants in this study had a relatively easy time describing the teaching methods that they used, some struggled with articulating their beliefs about teaching and learning. This suggests that teaching librarians might not be aware of how their beliefs about teaching and learning influence the teaching methods that they use. Rather, prior experience, environmental culture, or intuition influence teaching librarians' choices of teaching methods.

Recommendations for Practice

The findings of this study highlight three areas of importance for connecting beliefs about

teaching and learning to teaching methods. First, there is a need for graduate education and professional development programs that help teaching librarians see the value of understanding their beliefs about teaching and learning and how their beliefs influence their teaching methods. Second, workshops and professional development opportunities about the ACRL (2016) *Framework for Information Literacy for Higher Education (Framework)* should encourage teaching librarians to reflect on the alignment between the concepts articulated in the *Framework* and their own beliefs about teaching and learning. This alignment would help teaching librarians make connections between the *Framework*, their beliefs, and the teaching methods that they use. Finally, teaching librarians should consider how their organizational culture views one-on-one research consultations. By having a clearer conception that research consultations are teaching interactions, librarians might be more intentional about the methods that they use when conducting research consultations.

Limitations and Future Research

This case study focused on three R1 institutions that each had unique library instruction cultures. In R1 universities, multiple departments might have librarian positions with teaching responsibilities or a department solely focused on library instruction, like at MRU. Future research should explore different contexts in order to account for the influence of the R1 culture. Second, subject librarians with teaching responsibilities can serve a particular discipline or have a background in a subject (e.g., business librarians have business degrees). These disciplines can influence the teaching methods that teaching librarians use. Therefore, future research should explore how subject liaison responsibilities influence teaching methods.

Many of the influences of teaching methods found in the literature were external and the findings of this study suggest that the library culture influences the methods that teaching

librarians use. Additional research is needed to understand how the library culture rewards teaching methods. Depending on how teaching is rewarded, the library culture might influence the use of traditional methods rather than encouraging innovation. Research should also explore what internal characteristics influence librarians' decisions to use particular methods. Finally, with the emphasis on demonstrating how librarians contribute to student learning, more research is needed to demonstrate how the methods that teaching librarians use contribute to student learning outcomes that enhance students' educational experiences.

Conclusion

This study contributed to the understudied area of why teaching librarians choose to use particular methods in their teaching interactions with undergraduate students. The methods used by the teaching librarians in this study fit into three themes: engaging students in the teaching interaction, connecting with the information literacy content, and creating a supportive atmosphere. The results of this study suggest that both the librarians' beliefs about learning and teaching and the library environment influenced the methods that teaching librarians chose to use in the classroom. Due to the importance of culture, additional research is needed to fully understand how library culture influences the teaching practices used by librarians.

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CONCLUSION

Teaching librarians are educators in the university environment, yet the educator role for teaching librarians is complex. Librarians who are engaged in teaching activities often do not have formal graduate education related to teaching methodology or theories (e.g., Bryan, 2016; Julien & Genuis, 2011). Due to this gap in their training, teaching librarians may lack instructional skills that could improve the educational experiences of undergraduate students. This lack of preparation may result in these instructors relying on their own personal experiences, on-the-job training, or professional development to address this deficit (e.g., Bryan, 2016; Westbrook & Fabian, 2010). Therefore, there is more to understand about how teaching librarians describe their beliefs about teaching, learning, and instruction.

Coupled with the lack of graduate and professional development training, some researchers have posited that the library and university climate may influence librarians' teaching (e.g., Brennan & Davidson, 2018; Julien & Pecoskie, 2009). Some teaching librarians may find it difficult to gain confidence in teaching undergraduates when there is little institutional and library support for this critical skillset. More importantly, there is increasing pressure and expectations for librarians to demonstrate how their work aligns with institutional mission statements focused on improving student learning outcomes (Oakleaf, 2010).

In an effort to provide guidance around teaching practices, ACRL, the primary professional association for academic librarians, has developed several documents (e.g., *Framework for Information Literacy for Higher Education*, *Roles and Strengths of Teaching Librarians*) to guide teaching librarians' practices. The lack of formal training in teaching practices, role of institutional climate, and development of professional guidelines highlight the

need to understand the ways teaching librarians describe how they make meaning of their teaching practices and student learning.

Towards that goal, in this dissertation I investigated how teaching librarians think about teaching and learning in this complex environment by exploring how teaching librarians at three Texas doctoral institutions with very high research activity discussed their teaching philosophies. The research question guiding this study was: How do teaching librarians at Texas doctoral universities conceptualize their teaching philosophies with regards to undergraduate learners? This research question had the following subquestions:

- How do teaching librarians at Texas doctoral universities describe their beliefs about undergraduate teaching?
- How do teaching librarians at Texas doctoral universities describe their beliefs about how undergraduate students learn?
- How do teaching librarians at Texas doctoral universities describe how their beliefs about teaching and learning inform the teaching methods that they use with undergraduate students?

Using a qualitative case study design, in the fall of 2020, during the COVID-19 pandemic, I conducted online interviews via the Zoom platform with 13 teaching librarians at three academic libraries. I explored the core aspects of librarians' teaching philosophies in three articles focused on beliefs about teaching, beliefs about learning, and how these beliefs about teaching and learning influence instructional decisions. In the following sections, I describe why this problem is important to me, explain how each of the three studies answered the research subquestions, describe how the three studies answered the guiding research question, and conclude with a discussion of future research directions.

Researcher Positionality

As a teaching librarian myself, I believe it is important to have a better understanding of how teaching librarians think about teaching and learning. I did not take any course specifically about teaching in my LIS master's program and have relied on various training opportunities through my employers, professional development, doctoral graduate courses, and self-directed learning to develop my personal understanding and knowledge of teaching and learning. This has meant that my own professional beliefs about teaching, learning, and instructional methods have been shaped by multiple sources. As academic librarians, we are a practice-oriented profession, which, in my opinion, leads us to focus on concrete ideas related to teaching practices (e.g., methods, activities, assessment). With this focus, we do not always take time to reflect on or discuss what we believe about teaching and learning.

Beliefs about teaching and learning are critical as they influence how we interact with students, design our lessons, and set instructional outcomes, even if these beliefs are not intentionally articulated or taught within graduate programs. In the academic library profession, there has been an increased focus on critical reflection of our practices. This critical reflection should include intentional reflection on how we think about teaching, learning, and instructional practices. By understanding where teaching librarians make meaning in terms of their beliefs, we can develop better graduate education and professional development opportunities, expand research on teaching librarians, and ultimately, increase student learning. Towards that goal, my personal beliefs and experiences guided what research questions I wanted to ask, who I wanted to interview, and what practical recommendations can improve my professional community.

How Teaching Librarians Describe Their Beliefs about Teaching

A fundamental aspect of the teaching beliefs described in teaching librarians' teaching

philosophies is understanding the undergraduate learner. This demonstrates a belief in student-centered teaching by aligning the content and method of teaching with what would be most beneficial to undergraduate learners. In this study, only participants from Northern Research University taught semester long courses. Since some librarians in different institutions might not have a full semester to get to know their learners, participants relied on other ways to determine the needs of their learners. For example, they would ask for additional information from the faculty requesting the session, look at the assignment in the syllabus, use their prior experience with students in the course, or rely on what they have seen from students at the institution. This emphasis on understanding the learner was essential for focusing on the content and for developing activities that would meet learner needs for the current course or assignment as well as in the real world.

The belief in understanding the affective dimensions of learning related to a teaching philosophy grounded in understanding not all learners come to a teaching interaction with a mindset that facilitates learning. Teaching librarians in this study saw being aware of the emotions that students have and are dealing with during the teaching interaction as part of the instructors' responsibilities. For instance, as mentioned earlier, this research study took place during the COVID-19 pandemic. Some participants' descriptions of this belief were founded in the understanding that the pandemic was forcing students to learn differently for courses and deal with competing priorities in new ways. While a teaching librarian might not be able to change the students' feeling in the moment, using teaching methods that give students space to contemplate their emotions was one way this belief was put into practice. Perhaps, the affective dimensions of learning are challenging to address in group instruction, but easier to identify in one-on-one instructional settings.

It appears that these teaching librarians have a teaching philosophy grounded in the belief that librarians and students are partners in the teaching interaction. This is manifested by the teaching belief that students bring knowledge to the teaching interaction. Teaching librarians in this study believed that students were not blank slates when it comes to information literacy principles. The findings of this study suggest that participants believed that the role of the librarian was to acknowledge what students already knew about finding and evaluating information and to help students see connections between the type of information gathering and evaluation they do in their daily lives and what they need to do in an academic context.

The teaching beliefs identified in this study related to the importance of understanding the learner tie to beliefs about learning and the teaching methods teaching librarians utilize. The learner is at the center of the teaching interaction, not the teacher. The teacher's role is to know enough about the learner and to understand that learners have different preferences when it comes to learning during the teaching interaction.

Overall, this first article provided important insights about teaching librarians' beliefs about teaching. First, these librarians stated that they need to understand students' unique learning needs. Next, they believed that understanding students' affective dimensions of learning was important to their teaching. Finally, they realized respecting the knowledge that students bring to the teaching interaction was essential. These beliefs demonstrated that teaching librarians integrated the fundamental aspects of student-centered teaching into their teaching interactions with students.

How Teaching Librarians Describe Their Beliefs about Learning

In this study, teaching librarians' beliefs about learning focused on the learner. Beliefs articulated by teaching librarians included the realization that not all learners will learn in the

same way and that undergraduate students have different preferences for how they want to learn. This belief ties directly back to the themes described in teaching librarians' beliefs about teaching. The idea of considering what the learner brings to the teaching interaction and the different ways the learner prefers to learn will have a direct influence on the teaching methods used during the teaching interaction.

I found that participants' learning beliefs, describing the actions that students need to take in order to learn, align with aspects of learning theories. This is an important finding as there is much discussion about the lack of training librarians receive for teaching. Yet, somehow the participants in this study have picked up key aspects that research has demonstrated facilitate student learning, like students needing to be involved through activities, discussion, and reflection (e.g., Fosnot & Perry, 1996; Kolb, Boyatzis, & Mainemelis, 2001).

In terms of the ACRL (2016) *Framework for Information Literacy for Higher Education (Framework)*, the *Framework* influenced the teaching librarians' teaching philosophies in terms of the content that is taught, not in terms of how learning occurs. In this study, teaching librarians' learning beliefs were more influenced by general principles of providing opportunities for students to be engaged and making sure learner needs were met in terms of understanding the applicability of the content and emotional needs.

For teaching philosophies, there was a key alignment between beliefs about learning and what a teaching librarian plans to do in a teaching interaction. The librarians' teaching philosophies illustrated that there needs to be an active component to the teaching interaction for students to be able to learn. Teaching librarians believe that students will not learn if all they do is listen to a lecture. Creating an active component took many forms, from very student led, like

giving students open time to search for information on their topic, to librarian led, through set activities or worksheets.

Overall, this second article provided some critical insights about teaching librarians' beliefs about student learning. First, they discussed that undergraduate students learn in a variety of ways. Next, they believed that the learning process entails different aspects of engagement (e.g., students interacting with others). Finally, they mentioned that students need to see the applicability of the content and have their emotional needs met.

How Teaching Librarians' Beliefs About Teaching and Learning Influence Teaching

Methods

The descriptions of teaching librarians' beliefs about teaching and learning directly connect to the teaching methods that librarians described using in their teaching interactions. Figure 1 illustrates how the themes from beliefs about teaching and learning connect to the teaching methods themes. Together these connections demonstrate the teaching philosophies of teaching librarians at three doctoral universities. Teaching librarians teach in one-time instruction sessions, semester-long courses, and one-on-one consultations, which all can occur in-person and online. While the teaching methods utilized will look different in the different contexts in which librarians teach, the core principles described by the theme remain constant.

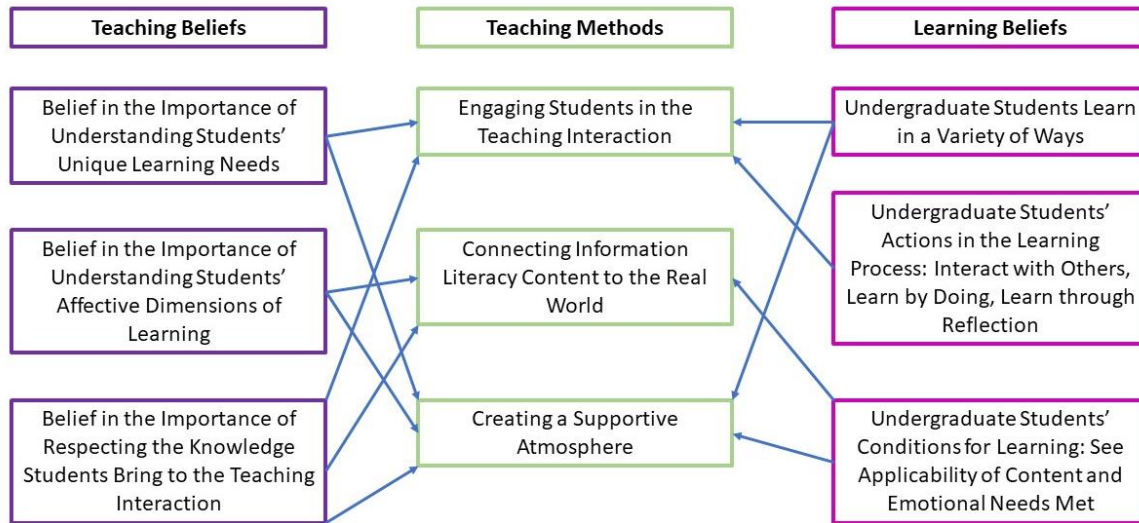


Figure 1 Conceptual model of beliefs about teaching, learning, and methods

As part of an overall teaching philosophy, the teaching methods need to be designed to engage learners in the teaching interaction. Engaging students in the teaching interaction aligned with understanding students' unique learning needs and respecting the knowledge that students bring to the teaching interaction. In this way, the teaching methods provide opportunities for students to share their experiences and knowledge with both the teacher and their peers. This method also aligns with where the learner is at in terms of prior experience with information literacy. To contribute to student learning, these methods should be varied to meet the many ways learners learn and provide opportunities for the actions that support the learning process: activities, reflection, and learning by doing.

The information literacy content is taught by connecting information literacy to the real world. This teaching method aligns with understanding the affective dimensions the learner brings to the teaching interaction, respecting the knowledge that students bring to the teaching interaction, and the need for learners to see why the content is useful in order to engage with the

content. While information literacy instruction is often tied to a specific academic project or assignment (Davis, Lundstrom, & Martin, 2011), this teaching method aims to show learners that they are already utilizing information evaluation principles in their daily lives, why these principles are important as they grow and develop as information creators, and how when they leave college these principles will continue to influence their actions.

Creating a supportive learning atmosphere relates to all aspects of the learner as articulated in the teaching beliefs. This method also relates to the learning beliefs of students learning in a variety of ways and meeting the emotional needs of learners to facilitate learning. Working one-on-one with a student, librarians can easily identify if students are struggling. In the library instruction classroom, teachers work to create an environment where students feel supported. Teaching librarians understand, particularly given their short interactions with students, that it is necessary to make sure students feel comfortable engaging in the teaching interaction, asking questions, and contacting the librarian after the session with follow-up questions.

Overall, while the participants in this study had a relatively easy time describing the teaching methods that they used, they struggled a bit more with articulating their beliefs about teaching and learning. This suggests that teaching librarians might not be aware of how their beliefs about teaching and learning influence the teaching methods that they use.

Examining the Primary Research Question

The research question guiding this study was: How do teaching librarians at Texas doctoral universities conceptualize their teaching philosophies with regards to undergraduate learners? The three articles provided a comprehensive description of the teaching philosophies of teaching librarians across three different institutions. As a result, these studies highlight several

key areas that advance the research discourse about the descriptions of teaching librarians' beliefs about teaching and learning and the influences on their teaching methods.

First, there is ample evidence that teaching librarians understand the importance of being good teachers in their higher education institutions. A thread through all the studies suggests that teaching librarians are engaging with students in a variety of settings, through formal or informal interactions, brief or extended sessions, or embedded or standalone courses. Despite the changing spaces and interactions, these librarians recognized that understanding teaching is essential to improve all of those interactions.

Next, these research studies highlight the critical need to create a link between the graduate education programs, professional associations, and professional librarian teaching practices. Formal training in teaching and learning theories and methods should begin in graduate programs and extend throughout librarians' professional careers. The narratives of the librarians in the second study, which focused on beliefs about learning, highlighted the need for professional development programs to address this issue.

In addition, across all three studies, there was little discussion about the importance of the *Framework* and *Roles and Strengths of Teaching Librarians* (ACRL, 2017) documents in relation to teaching librarians' beliefs. As stated in Paper 1, "Participants in this study applied this [learner-centered] approach through their articulation of beliefs related to understanding the learner, although no participant mentioned the *Roles and Strengths* document specifically." Paper 2 found that the *Framework* did not appear to influence teaching librarians' learning beliefs but did influence teaching librarians' development of learning outcomes and conceptualizations of information literacy. This may suggest that teaching librarians rely on informal experiences, rather than professional documents, to shape their teaching beliefs.

Finally, the findings highlighted differences between institutions with regard to how the librarians discussed their teaching beliefs, beliefs about learning, and how both influenced their teaching methods. The presence of distinct instructional cultures at each institution may suggest that some librarians develop their informal teaching beliefs through their interactions with their peers and how their library values instructional activities. These climate differences provided a compelling contrast between similar institutional types (i.e., very high research activity). For example, MRU, in comparison to RRU and NRU, had a well-articulated philosophy guiding their beliefs and instructional practices.

Future Research Directions

Future research can build off this current study in multiple ways. First, further exploration of the influence of institutional differences (e.g., culture, Carnegie Classification (2018), and size) on teaching librarians' teaching and learning beliefs is needed. The findings from this study suggest that the institutional culture related to teaching influences how teaching librarians describe their beliefs and their teaching methods. Therefore, the teaching philosophies of teaching librarians in other institutional contexts should be explored. This case study focused on three similar institutional contexts. By exploring the teaching philosophies of teaching librarians at community colleges, regional universities, and doctoral universities across different geographic locations, the profession can have a fuller understanding of how teaching philosophies manifest themselves in different contexts. Institutional culture could affect access to internal and external professional development opportunities related to teaching and learning. This case study focused on the general characteristics of the institutions' cultures related to teaching and did not collect information regarding support for professional development. Future

studies should consider the role of professional development opportunities as a contributor to teaching librarians' teaching philosophies.

Second, the findings of this study can be used to develop a survey instrument to provide a more nuanced understanding of teaching philosophies. This was an exploratory study, so the emphasis was on the words and ideas that came to the participants' minds. However, by presenting participants with a list of teaching roles or ways students learn, it might be easier for them to answer. Survey responses could illuminate the prominence of different beliefs and perhaps highlight relationships between teaching beliefs and students' experiences with the librarian.

Third, future studies should include the observation of teaching librarians' practice, including classroom instruction, online learning modules, one-on-one consultations, and synchronous online instruction. This study considered how librarians described what they do in the classroom. An observation aspect would provide additional information about how the beliefs espoused by the participants in this study are put into use in the classroom.

Fourth, further exploration of the distinctions between the one-time instruction session and the one-on-one research consultation is needed. Librarians have a long history of working to meet the needs of users through reference desk interactions and instruction. However, based on the findings of this study, there still seems to be internal conflict about how to make instruction sessions with a large group of students as focused on the needs of students as a one-on-one consultation.

Finally, this study demonstrates the need for the development of a library-centric teaching philosophy model that accounts for the unique situations in which a librarian teaches. Teaching philosophies have been discussed in library literature (e.g., Zauha, 2009) and there

have been workshops on developing teaching philosophies at conferences (Corrall & Folk, 2018; Corrall, Folk, & Pullman, 2019; Hinchliffe & Woodard, 2011). Despite discussions within the profession about teaching philosophies, only a few participants had a written teaching philosophy statement. Guidance for writing a teaching philosophy statement designed specifically for teaching librarians could encourage more teaching librarians to articulate their teaching philosophy. The TeachPhil U Model (Corrall et al., 2019) was developed by librarians, but as it has only been presented as a workshop at this point, it is unclear as to how the model provides guidance and acknowledges the contexts in which librarians teach and the variation in comfort with describing teaching and learning beliefs. Most of the guidance on developing a teaching philosophy is “how” based. Developing guidelines based on research findings can make the guidance better aligned with how librarians think about teaching philosophies and account for the areas that librarians find challenging when discussing their teaching philosophy.

Conclusion

My research set out to explore how teaching librarians describe their teaching philosophies (i.e., beliefs about learning, beliefs about teaching, and teaching methods) in order to provide additional insights about (1) graduate education and professional development, (2) professional climate, (3) alignment with institutional mission statements, and (4) the influence that ACRL’s guiding documents have on teaching librarians. Graduate education and professional development should focus on demonstrating to librarians how much they already know about teaching and learning theories and principles. Instead of taking a deficient approach, these professional development opportunities should help bolster librarians’ confidence by showing how what they are doing might already be related to teaching and learning theory. This study highlights the importance of the library environment in terms of how teaching librarians

think about teaching, learning, and their teaching methods. In order to make fundamental changes in teaching librarians' beliefs, teaching librarians and instruction coordinators should start by understanding how teaching librarians view the library culture. Within the three institutions of this study, there was limited discussion of how library instruction aligned with institutional mission statements. This could be due to the lack of focus on the assessment aspect of a teaching philosophy. Finally, the *Framework* does influence the content that librarians teach and how they think about that content, but it does not have much influence on the overall beliefs about learning held by teaching librarians.

This study shows that teaching librarians' teaching philosophies center on the learner. By understanding learner needs, involving the learner in the teaching interaction, and creating an environment that supports learning, teaching librarians aim to develop teaching interactions that support student learning.

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APPENDIX A

INTERVIEW PROTOCOL

Introductory Questions

1. Describe how your library instruction has changed due the COVID-19 pandemic.
2. How does your library instructional role shape your librarian identity?

Teaching methods for undergraduate students

1. What teaching methods do you use in your library instruction sessions?
 - a. What about your research consultations (or reference interactions)?
2. In your opinion, what are good teaching methods for teaching librarians to use? Why?

Beliefs about undergraduate teaching

1. How would you describe your role as a teacher for undergraduates?
2. What does the concept of “teaching undergraduates” mean to you?

Beliefs about how undergraduate students learn

1. Could you describe how your teaching practices contribute to undergraduate learning?
 - a. Why do you think those teaching practices would help students learn?
 - b. Information literacy, in particular?
2. How would you describe how undergraduate students learn best?

Extra Questions

1. In what ways does the ACRL Framework guide how you help undergraduate students learn?
2. In what ways does your library environment or culture influence your teaching practices?
 - a. How has your library environment prepared you for teaching?

APPENDIX B

PARTICIPANT TABLE

Pseudonym	Years in current position	Years in a librarian position with teaching responsibilities	Formal teaching experience prior to becoming academic librarian	Written teaching philosophy	MLS course as preparation for instruction duties	How instruction shapes librarian identity
Regional Research University						
Anne	5	12	No	No	Yes, practicum	Other aspects shape librarian identity more than instruction
Constantine	6.5	6	No	No	No	Doesn't think it does
Edgar	4	4	Yes	Yes	No	Teaching identity stronger than librarian
Elizabeth	1.5	1.5	No	No	No	Instruction primary identity as a librarian
Northern Research University						
Lauren	2	5	Yes	Yes	Yes	Instruction core part of identity
Regina	3	15	No	No	No	Instruction core focus
Sarah	15	15	Yes	No	Yes	Instruction 90% of librarian identity

Pseudonym	Years in current position	Years in a librarian position with teaching responsibilities	Formal teaching experience prior to becoming academic librarian	Written teaching philosophy	MLS course as preparation for instruction duties	How instruction shapes librarian identity
Valerie	4	7	No	No	No	Instruction essential part of identity
Metropolitan Research University						
Elle	3	11	No	No	Yes	Instruction part of identity
Kate	3	12	No	No	No	Engaging with students and their research large part of identity
Nicole	3	9	No	No	No	Working to fully embrace teaching librarian identity
Olivia	2	5	No	No	No	Sees self as more of an educator
Rene	12	21	Yes	No	No	Sees self as more of an educator