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Beyond Curriculum: Information Literacy, Librarianship,
and the Role of the Faculty at a Rural
Community College in Missouri

by

Michelle A. Lane

October 31, 2019

A Dissertation submitted to the Education Faculty of Lindenwood University in

partial fulfillment of the requirements for the degree of

Doctor of Education

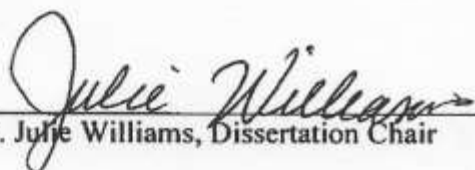
School of Education

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Doctor of Education
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Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work at Lindenwood University and that I have not submitted it for any other college or university course or degree.

Full Legal Name: Michelle A. Lane

Signature:  Date: 10/31/19

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Abstract

This case study was designed to evaluate faculty perceptions of teaching information literacy within the general education curriculum, the level of collaboration between faculty and library staff, and challenges regarding instruction of information literacy at a community college in Missouri. Using an adapted survey from a 2014 study by Dr. Sharon Weiner of Purdue University, faculty were asked to provide their current views regarding instruction of information literacy at the Missouri institution. Additionally, archival data provided by the institution were analyzed using triangulation to establish a baseline regarding the best path forward to improving instruction, assessment, and student learning. While a majority of faculty indicated they teach information literacy in their courses, the degree and level of skills taught varied. Moreover, utilization of the library was perceived as important by the faculty, but the perception was not supported by data provided by the institution regarding the number of information literacy workshop requests by faculty at the institution. Through analysis and summary report data, faculty identified challenge areas concerning information literacy at the institution and indicated a willingness to improve. Although the results did not reveal a formalized plan to implement improvements, perceptions regarding the importance of information literacy skills and the need to embed these skills into the curriculum provided hope for future collaboration and quality instructional design at the institution.

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Chapter One: Introduction

Information literacy is an essential skill for educational and workplace success and for being informed about issues that impact daily life (Weiner, 2014). Information literacy and the ability to discern fact from fiction has experienced a resurgence in the era of “fake news” (Najmabadi, 2017, p. 1). A nation’s ability to survive and thrive may very well depend on its peoples’ ability to learn (Darling-Hammond, 2001). Just as economies depend upon supply and demand of goods and services, the acquisition of knowledge also drives economy (Bedford, 2014). Bedford (2014) provided a global perspective by stating, “It is imperative that academic institutions continue to retain their positions as neutral, trusted, and accessible knowledge organizations to ensure that everyone in a knowledge society has access to ideas and knowledge” (p. 4).

Chapter One contains information regarding the background of this study, the conceptual framework of information literacy, and the statement of the problem. Moreover, the purpose and significance of this study, as well as pertinent terms, assumptions, and limitations can be found herein. Chapter One is intended to provide an overview of information literacy and its implications in higher education and learning, and ultimately, the workplace.

Background of the Study

As access to information in the digital age continues to increase, students’ lack of critical thinking and evaluative skills makes it difficult for them to effectively utilize the abundance of resources and information now available (Buhler & Cataldo, 2016). Due to the expansive nature of technology and an ever-growing abundance of information, the

understanding and use of information literacy skills and concepts is extremely impactful to the success of society (Yevelson-Shorsher & Bronstein, 2018). Information literacy remains a need for college students who should be able to demonstrate library resource proficiency (Buhler & Cataldo, 2016). Students are not only expected to gain knowledge, but they must also organize, analyze, and evaluate information in a coherent, relevant, and logical manner (Rahanu et al., 2016). As Breivik (2005) argued, “Nowhere is the need for information literacy skills greater than in today’s work environment, where efforts to ‘manage’ knowledge are increasingly necessary to keep a strategic advantage within a global market” (p. 23).

Assessment of information literacy has morphed from surveying students regarding perceptions of their own skills to a more-preferred method of performance-based assessment (Markowski, McCartin, & Evers, 2018). The application of rubrics to evaluate information literacy is the assessment tool of choice for librarians (Markowski et al., 2018). When instructors focus on concepts like information literacy within disciplinary instruction and allow for reflection, students have more meaningful experiences that foster growth and allow for the transfer of skills into careers and workplaces (Kuglitsch & Roberts, 2019).

Learning is a collaborative process (Barber, 2014). Interactions among faculty, staff, and students shape the manner in which information literacy skills are taught and learned (Yevelson-Shorsher & Bronstein, 2018). While many different disciplines are taught within an undergraduate general education curriculum, institutions should have consistent learning outcomes across multiple disciplines to help students integrate learning (Barber, 2014). With a large modicum of literature establishing the necessity of

collaboration between faculty and library staff, the relationship is difficult to begin and maintain (Douglas & Rabinowitz, 2016). Adams (2014) remarked librarians in academia should become versed in evidence-based practices to build on information literacy foundational practice and should advocate for its integration into the curriculum. The existence of library resources may not be enough to improve students' ability to enhance information literacy skills without the faculty engaging in intentional teaching of these skills within the curriculum (Weiner, 2014). Barber (2014) further explained, "In order to create a larger theory of learning that would be applicable across boundaries of the traditional silos in higher education, we need to bring together scholars who study learning in various contexts and convene conversations" (p. 16).

Some faculty perceive the responsibility of information literacy instruction to be that of library staff, although it is a shared responsibility that needs to occur in the classroom environment as well (Breivik, 2005). Bedford (2014) noted the creation and facilitation of knowledge must be the main priority of the faculty. Most models of instruction rely heavily on skill acquisition for a specific discipline and course context through instructor-led information exchange, but the models fail to incorporate broader skills that allow for information-based problem-solving skills and informal learning that occur outside of academia (Monge & Frisicaro-Pawlowski, 2014). However, some faculty view information literacy skills as a set of sequenced skills necessary for students to access and manage information in order to evaluate and analyze the information they encounter; this is a particularly important view when developing impactful information literacy programs (Yevelson-Shorsher & Bronstein, 2018).

Conceptual Framework

Colleges are still seeking to improve the information literacy skills of students who need to evaluate information presented to them (Breivik, 2005). The conceptual framework identified as appropriate for this study is information literacy. In a report by Zurkowski (1974), information literacy was defined as “concepts or ideas which enter a person’s field of perception, [and] are evaluated and assimilated, reinforcing or changing the individual’s concept of reality and/or ability to act” (p. 4). More widely accepted is the Association of College & Research Libraries’ (ACRL’s) (2016) definition of information literacy: “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” (p. 3). Zurkowski (1974) noted while being able to read is a set of skills that make someone literate, the way a person gauges the value of information is what makes them more information literate (Badke, 2010).

Breivik (2005) determined, “Education has always had the responsibility to help students acquire research skills, a responsibility that grew both harder and more urgent even before the widespread use of computers, with the information explosion” (p. 22). The ACRL created a framework to aid colleges in the effort to educate learners in developing information literacy in the digital age (Filbert & Ryan, 2016).

Statement of the Problem

Information literacy skills are vital in academic environments where students have easy access to the internet, but do not have the skills to evaluate information despite being reliant on information found online (Yevelson-Shorsher & Bronstein, 2018). To

date, the faculty of the institution participating in this study have not put forth any formal initiatives to improve information literacy skills of students (J. O. Hoggard, personal communication, July 3, 2018). Although data surrounding student use of the library and student success continue to be prevalent in academia, more research is still needed (Soria, Fransen, & Nackerud, 2017).

An expectation in today's workforce is for employees to continually learn and adapt to changes in the workplace (Bilodeau & Carson, 2014). Badke (2010) stated, "the key to a democratic society is the ability of the population to access and handle information effectively and efficiently" (p. 49). Bedford (2014) provided context on the impact of information literacy on society by stating, "Knowledge – validated, trustworthy, reliable – is the source of growth in a knowledge economy. Just as land, equipment, and financial capital were the engines of growth in earlier economies, knowledge is what drives the knowledge economy" (p. 3). As higher education and the business sector continue to place significance on information literate graduates, the need to provide more instruction, design, and engagement regarding information literacy continues to increase (Breivik, 2005).

According to the participating institution's Dean of Instruction (J. O. Hoggard, personal communication, July 3, 2018), there is currently a lack of research concerning the faculty perspective of their role in emphasizing information literacy. Instead, faculty have relied solely on learning resource staff, such as librarians, to improve student outcome achievement in information literacy (J. O. Hoggard, personal communication, July 3, 2018). Booth, Lowe, Tagge, and Stone (2015) remarked:

Modern libraries operate in a climate of rapid organizational, technological, and information change, the demands of which are exacerbated by persistent resource scarcity. In this context, assessment has become central to the practice of determining and communicating the “value” of academic libraries to the communities of higher learning in which they are situated. (p. 623)

At a community college in Missouri, ABC College, information literacy exists as a college-wide student learning outcome evaluated through the general education curriculum (Student Learning Improvement Committee [SLIC], 2019). While this outcome was newly created in the last three years and was measured in a pilot study over three semesters, the results have not been triangulated with other existing data or with consideration of the faculty perspective (SLIC, 2019).

A challenge of academia is that the society to which students are now accustomed includes a constant barrage of information (Breivik, 2005). Wiebe (2015) remarked while students can usually do a decent job of finding information, there is a difference when using the internet to conduct scholarly research. Students accustomed to easily accessing information may find academic information literacy searches to be more difficult or to take too long for retrieval of information (Yevelson-Shorsher & Bronstein, 2018). Breivik (2005) proposed the best way to increase use of the library is for the faculty to require library use when creating assignments for students. While this concept has become a noted important objective in any educational experience, the emphasis within the curriculum has yet to be fully realized at ABC College.

Purpose of the Study

The overarching goal of this study was to explore the connection among library services and resources, information literacy assessment as a college-wide outcome, and emphasis on information literacy by the faculty in curriculum design at ABC College, a rural community college in Missouri. The focus was on the faculty perspective regarding the significance of information literacy in course discipline and the need to embed more opportunities for information literacy application and skill practice in the curriculum. Historical survey data and college-wide outcome data in information literacy currently exist for the institution but have yet to be studied in triangulation with student and faculty perspectives about the importance of information literacy (J. O. Hoggard, personal communication, July 3, 2018). Increased intentionality of the faculty to include more information literacy projects and rigor within the curriculum may aid in the improvement of student information literacy. This case study provided for the investigation of multiple types of data to explore the utilization of library resources, the faculty's perspective regarding the importance of information literacy within the curriculum, and the student learning outcome of information literacy across the college's general education curriculum.

The institution being studied provides an executive summary on their website, under the Office of Institutional Effectiveness webpage of Institutional Assessment, providing faculty analysis and feedback on the assessment of information literacy. Additional archival data were explored including results of the library survey for faculty, college-wide outcomes assessment data for information literacy, and other institutional data found on the institution's website. Some supplemental data from the Chief

Academic Officer, Chief Student Services Officer, and Library Staff were also utilized to support findings. Next, data points for the institution were gathered, and a recommended action plan will be developed to aid students, faculty, and staff to improve student learning across the general education curriculum. Additionally, all aspects of learning resources, faculty and library staff relations, and the possibility of future collaboration on initiatives to improve student learning were explored.

Research questions. The following research questions guided the study:

1. What is the perception of faculty toward incorporating information literacy within their disciplines?
2. What is the extent to which faculty collaborate with library staff?
3. What institutional challenges do faculty express regarding information literacy?

Significance of the Study

As members of society in the era of social media and technological advances, it is important for students to understand the value of information and the responsibility involved when creating content for others. Institutions of higher education have a responsibility to teach students the skills necessary to be successful in becoming information literate. Specifically, for the institution studied, faculty have adopted information literacy as a college-wide outcome, designed a rubric and method of assessment, and identified the point within a student's program of study where this should be assessed. Despite several years of collecting assessment data, improvement of student information literacy has yet to be realized. Through focused research, this study was intended to aid the institution in increasing student information literacy by eliciting

the current perceptions of faculty, determining the extent of collaboration between general education faculty and library staff, and identifying any institutional challenges or barriers to improvement.

Definition of Key Terms

For the purposes of this study, the following terms are defined:

Association of College & Research Libraries (ACRL) framework. The ACRL (2016) developed the *Framework for Information Literacy for Higher Education*, widely accepted as “The Framework.” This framework is a six-frame concept of central ideas regarding information literacy and practices for education (ACRL, 2016).

College-wide outcomes. Hernon, Dugan, Schwartz, and Saunders (2013) defined college-wide student outcomes as the “aggregate statistics on groups of students compiled at the program and, more likely institutional levels, and they paint an overall portrait of that institution” (p. 6). For this study, college-wide outcomes refer to institutional outcomes.

General education courses. The participating college refers to general education courses using the following definition:

...a list of courses consistent with the statewide general education policy and is part of the Associate of Arts and Associate of Arts in Teaching Degrees. Students must select course offerings from each general education component in accordance with Missouri Department of Higher Education. (Dougherty, 2018, p. 44)

Information literacy. The ACRL (2016) defined information literacy as “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” (p. 3).

Student Learning Improvement Committee (SLIC). According to a publication found on the website of the institution being studied:

The Student Learning Improvement Committee (SLIC) is a standing committee of the faculty whose purpose is to provide review, analysis, and feedback on the results from the student learning outcomes assessment processes under the leadership of the Chief Academic Officer in concert with the Office of Institutional Effectiveness. The duties of this committee include the coordination and promotion of student learning outcomes assessment for the purpose of improving student learning of general education, specific programs, and the curriculum as a whole. SLIC ensures that these activities are used to improve learning and to provide feedback to faculty on ways to improve student learning and increase student success. Additionally, the committee serves as a faculty peer panel to review and provide feedback on assessment results and learning improvement initiatives. (SLIC, 2019b, p. 3)

Delimitations, Limitations, and Assumptions

The scope of the study was bounded by the following delimitations:

Time frame. The study was conducted during a 16-week spring semester.

Location of the study. The study was conducted on the 80-acre campus of a rural community college.

Sample. The sample for the study included full-time faculty members who teach within the general education curriculum at ABC College.

This case study was specific to one rural community college in Missouri, and thus the convergence of factors regarding the curriculum, faculty perspective, and definition and design of the student learning outcome of information literacy may be unique to this institution. Careful consideration for particular aspects of the design of this study was taken.

The following limitations were identified in this study:

Sample demographics. The design of this study consisted of purposive sampling of a population so the researcher could make the best-informed decision regarding a sample for a study (Fraenkel, Wallen, & Hyun, 2015). Purposive sampling allows the researcher to work with a sample more reflective of a particular characteristic, such as faculty who teach general education courses (Creswell, 2014). A limitation of purposive sampling could be due to an error in the researcher's judgment that the sample is representative of the population studied (Fraenkel et al., 2015).

Replication. This study could yield different results due to changes in variables, such as curriculum, ongoing implementation of continuous improvements, and archival data from a given point in time if replicated. The survey responses reflected the views and opinions of the faculty within a given time, culture, and circumstance. Creswell (2014) cautioned against response bias that may need to be monitored on a week-to-week basis while the survey instrument is administered using wave analysis or respondent/no respondent analysis. Monitoring is vital, as the study is a snapshot in time and may not reflect ongoing professional development or improvement taking place at ABC College.

Generalization. A limitation of this study could be generalization, as it is not possible to predict, at this time, if the results would be the same with another population.

Fraenkel et al. (2015) noted, “Limitations of qualitative research are that there is seldom methodological justification for generalizing the findings of a particular study” (p. 435).

The following assumptions were accepted:

1. The responses of the participants were offered honestly and willingly.
2. The sample was representative of the full-time faculty who teach within the general education curriculum.

Summary

School librarians have acknowledged for several years the gap between students’ view of their ability to find answers and their actual information literacy skills (Wiebe, 2015). The teaching of information literacy cannot continue to be limited to small pockets within an institution; educators, from both the library and the classroom, must work together and begin discussions about how to improve student information literacy (Barber, 2014). The perceptions of faculty tend to be varied regarding the responsibility of teaching these skills (Breivik, 2005). Some researchers indicated librarians tend to align their identity as instructional and academic librarians with the role of educators and teachers (Detmering, McClellan, & Willenborg, 2019).

Learning is a process of collaboration (Barber, 2014). The current teaching and learning of information literacy at a community college in Missouri and the interventions currently in place to improve student learning at the institution were researched in this study. Zurkowski paved the way for information literacy to be treated as worthy of teaching in higher education, and it remains a skill college student need to learn as part of their education (Buhler & Cataldo, 2016). The findings from this study established baseline data for a specific community college in Missouri to begin the improvement of

information literacy and student learning by establishing the current status and practices implemented. This chapter contained the conceptual framework, historical perspective, statement of the problem, purpose of this study, research questions, and the significance of the study. Also, a definition of terms along with limitations and assumption of this study were discussed.

In Chapter Two, a review of the literature is presented. Topics explored include challenges to teaching information literacy, the impact of information literacy, the impact of librarianship on student learning, and best practices currently in the field. Additional research is reviewed regarding the specific institution and data that may be of influence on the study.

Chapter Two: Review of Literature

This chapter contains a review of historical and current literature concerning information literacy. Specific attention is given to literature focused on the improvement of information literacy by faculty in specific disciplines as well as academic librarians who support the curriculum. Additional topics investigated include challenges of teaching information literacy, librarianship and its impact on student learning, faculty scholarship, instruction, and best practices for institutions.

Information Literacy: An Historical Perspective

Zurkowski submitted a report in 1974 regarding information literacy to the National Commission on Libraries and Information Sciences in which he remarked, “The pattern of growth in this field is well established and should be built upon to expand the overall capability of all U.S. Citizens” (p. 27). A widely accepted definition from the Association of College & Research Libraries (ACRL) (2016) describes information literacy as “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” (p. 3). Zurkowski (1974) and Badke (2010) noted while information gathering is an important aspect of information literacy, the critical thinking skills required to analyze information are more desired. Known informally as “The Framework,” a document created by the ACRL (2016) helps to further define the concept of information literacy and provides the context to improve discussion between discipline instructors and librarians, which is vital for the improvement of information literacy instruction in higher

education (Fullard, 2016). The Framework shaped the conversation regarding information literacy and related scholarly pursuits (Badke, 2015).

The term “information literacy” was created by Zurkowski in 1974. Zurkowski, at the time, was president of the Information Industry Association, and he submitted a report to the National Commission on Libraries and Information Science in which he noted:

Information is not knowledge; it is concepts or ideas which enter a person’s field of perception, are evaluated and assimilated reinforcing or changing the individual’s concept of reality and/or ability to act. As beauty is in the eye of the beholder, so information is in the mind of the user. (as cited in Badke, 2010, p. 4)

The ACRL’s (2016) definition of information literacy is more commonly used among academic librarians and was adopted by the American Libraries Association. Witek (2016) believed the work of Zurkowski provided a platform for information literacy to become a worthwhile pursuit by educators. Zurkowski (1974) captured the essence of the problem when he stated, “We experience an overabundance of information whenever available information exceeds our capacity to evaluate it” (p. 4). This construct thus established the foundation necessary for organizations and institutions to provide instruction on the use of the library to gain knowledge and to become more information literate (Badke, 2010).

Additionally, Badke (2015) described the ACRL framework as “less of a how-to and more of a what-you-need-to-understand” (p. 71). In addition to the ACRL (2016) framework for the education of information literacy, the organization also developed a set of standards to aid libraries in higher education:

The Standards for Libraries in Higher Education are designed to guide academic libraries in advancing and sustaining their role as partners in educating students, achieving their institutions' missions, and positioning libraries as leaders in assessment and continuous improvement on their campuses. Libraries must demonstrate their value and document their contributions to overall institutional effectiveness and be prepared to address changes in higher education. (p. 5)

Berkman (2016) interviewed Sharon Mader, who began her term as a Visiting Program Officer for Information Literacy for the ACRL in 2015. Mader asserted:

The Framework helps surface the essential questions to use when determining what we want students to learn. Therefore, for example, say, you are doing an instruction session; you would need to first develop the learning outcomes. In addition, those outcomes would inform how you would assess what the students learned. (as cited in Berkman, 2016, p. 48)

Student learning outcomes are areas of competency emphasized in the learning environment beyond typical course outcomes (Hernon et al., 2013). Hernon et al. (2013) noted information literacy is one of those areas for which student learning outcomes should be developed.

Challenges of Information Literacy

Despite studies revealing students' need to apply information literacy skills in the workplace (Travis, 2017), information literacy must compete against the internet and immediate access to information when students need to research rather than gather information through mere surface inquiry (Wiebe, 2015). Students often access the internet through their smartphones or personal computers; in a study of students in

Tanzania, students learned to use technology tools by practicing on their own, learning from their peers, or taking basic introductory courses (Klomsri & Tedre, 2016). After accessing information, students struggle with identifying the authority of sources (Djokic & Kargut, 2019). Social media access allows for customization of information, and information tailoring shrinks one's purview of what information is available; the convenience of access lures learners into a false sense that information literacy is simple (Wiebe, 2015). Buhler and Cataldo (2016) stated, "In the current world of scholarly digital information, the lines between the various traditional information containers (book, journal, conference proceeding, etc.) are blurred" (p. 24). However, while some educators are disheartened by alleged fake news, others are embracing digital information in the form of videos, blogs, etc. as resources used to further develop knowledge and skill acquisition (Hobbs & Coiro, 2019).

Some students may have apprehension and confusion about entering the library, working with librarians, and understanding the system and organization of materials (Yevelson-Shorsher & Bronstein, 2018). Travis (2017) revealed students use site design as justification for finding a website credible. Technology systems and databases can be overwhelming for students who are unfamiliar, making the need for specific instruction necessary for all learners (Rapchak, Lewis, Motyka, & Balmert, 2015). Students sometimes choose to use a previous website found successful regardless of its appropriateness for a new search (Travis, 2017). Students who did not participate in information literacy or library resource training indicated it would have been beneficial to them in their learning (Klomsri & Tedre, 2016). Yevelson-Shorsher and Bronstein (2018) revealed students prefer application-based practice or open lecture-type sessions.

Badke (2015) inferred students lack the comprehension and evaluative skills to be successful scholars. One discipline or area of emphasis to consider is developmental courses, specifically in reading and writing (Badke, 2015). Adams and McKusick (2014) noted:

Improving developmental education is critical for our students and for higher education's crucial role in promoting an egalitarian society, a society for which all citizens have a chance, if they are willing to work hard, to improve their life situations. (p. 15)

Recognizing the role of instructors, Rapchak et al. (2015) expressed, "Instructors should not assume that nontraditional students have IL [information literacy] skills" (p. 139).

Information literacy requires critical thinking, and students need guidance to access information, but more importantly, to apply and evaluate the information (Breivik, 2005). The results of a study conducted for Kent State University and administered in Vietnam indicated students were adequate at lower-level information skills search strategies and accessing information, but they still had noted challenges in the area of evaluating information and sources (Huyen & Walton, 2016). Rapchak et al. (2015) recommended educators, "regardless of discipline, model and scaffold appropriate IL learning outcomes, especially evaluating information" (p. 140).

Mellon (2015) conducted a qualitative research study in which she studied the perspectives of students regarding their use of the library for research. Mellon (2015) noted, "It was found that 75 to 85 percent of the students in these courses described their initial response to library research in terms of fear" (p. 276). The implicit challenge that emerged from these descriptions prompted the author to present three concepts: "(1)

students generally feel their library-use skills are inadequate while the skills of other students are adequate, (2) the inadequacy is shameful and should be hidden, and (3) the inadequacy would be revealed by asking questions” (Mellon, 2015, p. 276). This challenge is compounded when students need assistance but lack the terminology or knowledge base to convey what is needed in a precise manner (Buhler & Cataldo, 2016). Buhler and Cataldo (2016) stated, “Additionally, library instruction sessions reveal that students do not readily distinguish between the various types of resources when searching online (e.g. Google versus a library database)” (p. 23). Likewise, various definitions of concepts, such as plagiarism, can be difficult to teach due to disparity and lack of agreement among professionals, librarians, faculty, and external entities (Michalak, Rysavy, Hunt, Smith, & Worden, 2018).

Some students may have difficulty knowing how to start a search or where to best begin (Yevelson-Shorsher & Bronstein, 2018). Peel (2016) noted students use what skills they have in terms of “uncoding,” but this process of muddling through overloads working memory and does not allow for comprehension and understanding of what is read (p. 40). Uncoding continues to put them at a disadvantage compared to students who are more advanced in their reading skills and vocabulary. Students cannot distinguish the differences between sources, which can be detrimental to their ability to access and retrieve credible information and makes it more difficult for libraries to provide services (Buhler & Cataldo, 2016). Peel (2016) articulated, “students who are disadvantaged as readers often lack sight vocabulary, text structure knowledge, and topic experience. They have fewer resources to draw upon when trying to unravel the message

encoded in the text” (p. 40). Students’ ability to embrace information literacy is challenged immensely as their reading comprehension is compromised (Peel, 2016).

Librarianship and Its Impact on Student Learning

With noted technological developments in society, how people communicate and filter information is evolving (Filbert & Ryan, 2016). Adams (2014) declared the importance of librarians familiarizing themselves with practices to support teaching and learning and becoming more aware of the nuances and cultural values to aid in discipline-specific practices of information literacy. Information literacy success requires skills in critical thinking, analysis, evaluation, and application (Wiebe, 2015). Librarians have a unique position on college campuses to be an influence in the battle against student plagiarism by providing instruction in information literacy, and many perceive this to be their responsibility (Michalak et al., 2018).

Librarians should be abreast of current technologies and terminology to aid their patrons (Filbert & Ryan, 2016). With technology providing easy access to materials, the role of librarians to provide database access workshops is dwindling and making more traditional methods of assessment dated and obsolete (Veach, 2018). Librarians need to synthesize services and resources to steer patrons away from less-reliable sources despite easy accessibility (Gibson & Jacobson, 2014). At times, librarians have collaborated with other departments, such as those who design curriculum and instruction, to create units or modules embedded into courses or learning management systems (Michalak et al., 2018). A challenge in information literacy instruction includes post-secondary institutions offering a variety of resources with which students are not yet familiar (Foote, 2016). By utilizing resources and services of the library, students can further develop

their information literacy skills and transfer this knowledge to other areas of their lives (Yevelson-Shorsher & Bronstein, 2018).

When conducting information literacy sessions, it is necessary for instructors to keep in mind courses should be generalized, so the applicability of knowledge learned can be applied across various disciplines by even the most novice of students (Azadbakht & Polacek, 2015). Toward this end, librarians are instrumental in providing knowledge to students and are expected to continually improve upon their skills (Bilodeau & Carson, 2014). Librarians have the unique opportunity to be informers and guides to navigate information, as Filbert and Ryan (2016) remarked, “In theory, this signals a profound modification in librarianship and literacy instruction, shifting from procedural skills and principled practices toward processual engagements and social, contextual, and creative interactions, and evaluation” (p. 200). Perhaps one of the most profound statements by Stoffle, Renaud, and Veldof (2015) was their call for librarians to leave the physical confines of the library and collaborate with students and faculty in the learning environment rather than considering the relationship as one-directional in which seekers of information must first come to the library.

A librarian’s principal task is to teach incoming students about resources available, create a professional presence, and promote career skills (Foote, 2016). Moreover, information literacy, or the broader concept of information science, can be taught to students within its own discipline, having its own set of threshold concepts (Kuglitsch & Roberts, 2019). Veach (2018) noted information literacy has been discussed and interwoven in multiple disciplines, but only in the area of librarianship does it retain its status as the main source of education. Information literacy instruction

may be one of the final areas at an institution that is not easily housed in one specific discipline (Veach, 2018). Information literacy may not truly engage students as it seems outside their desired field of study (Kuglitsch & Roberts, 2019).

Librarians, themselves, can have more and better learning experiences when they collaborate with other departments for projects and initiatives (Bilodeau & Carson, 2014). Adams (2014) suggested librarians have a unique role:

Academic librarians should become familiar with the concept of evidence-based practice because it builds on a foundation of information literacy (IL) and therefore offers an argument for increased integration of IL skills instruction into the preparatory curriculum in many disciplines. (p. 232)

The value of the ACRL Framework increases when librarians collaborate with faculty, incorporate information literacy into course content, and implement intentional initiatives to improve information literacy (Gibson & Jacobson, 2014).

Librarians are not always versed in teaching and methodologies; thus, "...when they entered the professional world of librarianship, not only did they face a significant gap in their knowledge about the profession, they also had little practice in the learning methods employed by librarians in practice" (Bilodeau & Carson, 2014, p. 45).

Additionally, students are likely enrolled in other disciplines, aside from information science, and information literacy concepts must be taught in a way that connects to existing knowledge to maximize retention of information (Kuglitsch & Roberts, 2019). By teaching information literacy concepts as relatable to other disciplines, the reach of librarians and their contribution to instruction is expanded (Kuglitsch & Roberts, 2019).

Many potential improvement possibilities for academic libraries and librarians to remain relevant in the world of academia exist, such as shifting focus from quantity of resources, encouraging more responsible risks, and increasing collaboration with other departments and stakeholders (Stoffle et al., 2015). Veach (2018) postulated library collaboration with departmental faculty allows for knowledge sharing, as librarians understand information literacy, but faculty have a better grasp on teaching and learning concepts and skills. Librarians sometimes find it difficult to cooperate with faculty when the library staff does not feel viewed as colleagues or as capable of teaching classes to students (Yevelson-Shorsher & Bronstein, 2018). Librarians can also use strategies, such as common language accepted by faculty when creating learning outcomes, to provide commonality and acceptance (Adam, Burgess, McPhee, Olson, & Sich, 2018). While improving student learning is a joint effort for faculty and librarians, librarians face challenges unique to the library (Stoffle et al., 2015). According to Stoffle et al. (2015), these challenges include “the continuing escalation in the cost of journals, rapidly changing information and telecommunications technologies as they relate specifically to libraries, the growing number of competitors in the information provision business, and the changing needs and demands of their customers” (p. 319). Moreover, librarians are not always privy to the results of their instruction; thus, they cannot make interventions or improvements, which hinders their efficacy (Mullins, 2016).

Faculty Scholarship and Instruction

While the need for improvements in academic libraries remains, faculty culture also has room for improvement (Stoffle et al., 2015). Bedford (2014) conducted a mixed-

methods study regarding the learning, unlearning, and relearning of instruction and research. Bedford (2014) indicated the following observations within the results:

...Observation 4. Teaching of new topics or cross-disciplinary topics should be undertaken by full-time faculty as opportunities to learn, unlearn, and relearn. Observation 5. We learned that the highest level of learning, unlearning, and relearning activity pertains to an area in which LIS faculty have little formal training – teaching and instructional methods... Observation 8. Faculty do not appear to be participating in broad-based learning activities. And, they are rarely participating in learning activities outside of their immediate discipline. This suggests that opportunities for faculty to surface knowledge gaps is low. (pp. 20-21)

Some noteworthy responsibilities of faculty include the need to conduct “research and development, advise students and organizations, convene communities to address challenges and to spread knowledge, and advocate for important issues” (Bedford, 2014, p. 4). Tingle (2018) proposed the time required to provide demonstration of accessing resources may be hard to justify within a traditional class session, but when faculty provide a demonstration prior to sending students to the library for a workshop session, students can focus their time and efforts to specific questions and points of inquiry within the workshop session in order free up class time. Improving instruction outside of the library allows for “the opportunity to restructure completely and rethink the curriculum to focus on learning and active student participation in the learning process” (Stoffle et al., 2015, p. 319).

Collaboration between faculty and librarians can create a successful information literacy culture (Hizmetli, 2014). Through concerted collaboration among departmental faculty and with librarians, overlying instruction should have a direct impact on student learning (Veatch, 2018). Collaboration may include a review of course syllabi, descriptions, and curriculum mapping (Gabriel, 2008). Librarians at Western University used the creation of information literacy learning outcomes as a way to engage faculty in discussions about instructional methods to move away from the one-shot workshop model (Adam et al., 2018)

Hizmetli (2014) noted, “College leaders should seize upon these opportunities to bring together departments that do not have a history of working collaboratively so that they may work toward addressing a common issue” (p. 57). Some faculty believe additional funding is the solution for improving student learning, while others suspect the curriculum is the catalyst, including the evaluation of pedagogy, delivery, and faculty teaching load (Stoffle et al., 2015). At an educational institution, faculty consider what the intended learning outcomes should be for a given course, program, degree, or certificate (Gabriel, 2008). Morest (2015) contended faculty scholarship at a community college can include “faculty working together both on campus and in committees that have formed regionally around a specific scholarly task” (p. 29). A case study of community college practices of knowledge management to improve student outcomes resulted in five phases of collaboration between and among the faculty and staff, including the following: establishing an appropriate infrastructure of technology, using data to make informed decisions for improvement, sharing results and best practices across the institution for improvement, creating a technology system to provide more

information to students and advisors in a timelier manner, and the creation of a freshman experience program (Hizmetli, 2014). Veach (2018) stated:

Ideally, librarians should work closely with faculty in the disciplines, helping them with curricular revisions and effective pedagogical practices, and identifying information literacy concepts relevant to faculty members; disciplinary specialties. Faculty need to learn from librarians, not just use them as a service and then take an active role in teaching information literacy to their students. (p. 16)

An example of incorporating information literacy instruction into a disciplined course is collaborative work at Mercer University between librarians and faculty in the history department (Dowling, Wright, & Bailey, 2018). Students attended a session on library discipline-specific resources, sources, and specific techniques such as artifact handling and the writing of historical descriptions (Dowling et al., 2018). The second phase of this collaboration resulted in a class activity in which students were allowed to handle and examine historical artifacts gifted to the institution for the purpose of teaching and learning (Dowling et al., 2018).

Open admission institutions have incredibly diverse populations of students making scholarship a challenge (Morest, 2015). Moreover, Gabriel (2008) believed educators should not assume at-risk students know how to complete research without understanding the base skillset of accessing information or using the library in a scholarly manner. Once a student experiences success with a given search tool and realizes its capability, the student tends to be motivated to continue using the tool for a given purpose (Tingle, 2018).

Information Literacy Assessment

Two emerging issues in the past 20 years of higher education include information literacy instruction and outcomes assessment (Erlinger, 2018). To best serve the various learning needs of students, a means of assessing student need is important (Casazza & Silverman, 1996). Gorran Farkas, Janicke Hinchliffe, and Houk (2015) surveyed university libraries, not individual librarians, and researched the level of assessment for each respective institution. The researchers noted:

Respondents who reported having instructional assessment committees had the highest percentage of institutions with a culture of assessment at 83% ($n = 57$), followed by assessment committees with [79%] ($n = 123$) and instructional committees with [68%] ($n = 202$). (Gorran Farkas et al., 2015, p. 159)

The results of the survey reinforced the “most significant facilitating factor” for a culture of assessment is “clear expectations of the library” and “an institution-wide emphasis on assessment” (Gorran Farkas et al., 2015, p. 162). It is crucial for faculty and staff collaborative efforts to be supported by academic leadership, faculty assessment committees, and assessment personnel (Carter & Rodgers Good, 2018). It has become a requirement throughout higher education for colleges and universities to demonstrate student learning, including learning in the area of information literacy (Erlinger, 2018). Gorran Farkas et al. (2015) argued for promoting a culture of evaluation in academic libraries.

Librarians need to understand their roles and trends in assessment to maintain their worth in academia (Gregory, 2014). Due to ever-looming pressure from accrediting bodies calling for data-driven decisions and outcomes-based assessment, libraries

struggle to demonstrate their efficacy through traditional means of assessment such as physical book holdings or utilization of the library (Veach, 2018). The IDEA model theorized by Mullins (2016) is a four-step approach to embedding information literacy into academic courses through curricular design. The four steps of the IDEA model are interview, design, embed, and assess (Mullins, 2016). The ARCL Framework provides the standards but not the methods for instruction of information literacy concepts and skills (Djokic & Kargut, 2019). While information literacy instruction has a wide breadth of theories and application, a lack of reporting of findings and training opportunities exists, and this is coupled with a lack of terminology consistency (Erlinger, 2018).

The National Institute for Learning Outcomes Assessment (2018) developed an assessment toolkit designed to aid institutional libraries and faculty to collaborate on assignment design through a peer-review process called a “charrette.” This structured feedback process allows for meaningful assessment design through intense collaborative effort where professional development of both faculty and staff becomes a positive by-product of the exercise (Wishkoski, Lundstrom, & Davis, 2018). Librarians have an opportunity to engage faculty in conversations about information literacy instruction by providing workshops geared toward teaching and learning of information literacy skills throughout the institutional curriculum (Dolinger, 2019). Previous research on how people interact and use information can be used to gain insight into the improvement of information literacy instruction (Travis, 2017).

Additionally, some researchers have called for institutions to allow “a seat at the table” for academic librarians to be included in assessment and the improvement of student learning in areas such as information literacy (Detmering et al., 2019). It can be

difficult for librarians to earn a seat at the table on the curricular level (Wishkoski et al., 2018). Dolinger (2019) recognized by challenging perceptions of academic hierarchy and inserting themselves into the teaching and learning conversation of information literacy, librarians may become a much-needed support to faculty and students.

Librarians enjoy instruction, and by participating in this aspect of the institution, visibility of resources offered by the library increases, professional development opportunities develop, and participation in the pursuit of improving student learning at the institution increases (Detmering et al., 2019). When librarians have some modicum of contribution to assignments that include information literacy concepts and skills, awareness of librarian expertise is elevated and faculty benefit from fresh perspectives and insight (Wishkowsky et al., 2018). Library staff experience more faculty understanding of information literacy, feel more valued by colleagues, and perceive a boost in visibility on campus as a result of collaborating with faculty in the assessment and improvement process (Carter & Rodgers Good, 2018).

Best Practices for Institutions

A challenge of information literacy instruction and theory is the vast number of varied theories and/or approaches to instruction, which can be characterized as both difficult and customizable, depending on a specific need or competency (Erlinger, 2018). The ACRL Standards and Framework are widely accepted documents and rules for best practice (Erlinger, 2018). A collaborative group of librarians and faculty from across multiple disciplines reviewed three examples of student work for consideration to be placed online by implementing an evaluative rubric that incorporated components of the ACRL Framework (Klubek, 2016). Librarians tasked with assisting students with

accessing information aim to provide students with the necessary skillset to succeed in academic efforts and with the means to think critically and assess the validity of information for themselves (Wiebe, 2015).

The Baton Rouge Community College study resulted in a positive reception of the peer-to-peer learning model and offered a unique way for librarians to engage with students regarding information literacy skills, along with a way for students to communicate among themselves about information literacy skills (Klubek, 2016). Nath (2015) postulated, “School library becomes a source and force for educational excellence only when it functions as an integral component of the total teaching-learning process” (p. 89). Students need more active learning engagement focused to grasp concepts such as differentiating information within different formats, contexts, and methods of delivery (Djokic & Kargut, 2019).

Klomsri and Tedre (2016) noted several recommendations to consider when working to improve information literacy instruction, including the need to add technology training for students as an offering for those who may not be as familiar with emerging technologies. Mader posed:

in order for information literacy to have its greatest impact, it has to be integrated into the context of specific disciplines, so it is important for librarians to collaborate with various discipline-specific faculty to discover the essential understandings they want students to have. (as cited in Berkman, 2016, pp. 47-48)

Bond (2016) described his experience of teaching information literacy in a series of three courses where an instructor was physically in the classroom, while Bond, an instructional

technologist, was virtually present in the classroom on screen. By using this modality and having two different types of experts involved in instruction and design of the course, students were better able to engage with the content and digital technologies (Bond, 2016).

Providing regular information literacy training throughout a student's coursework, in addition to traditional freshman-level courses, makes online databases more accessible outside of the library and provides more "collaborative inquiry-based learning" opportunities (Klomsri & Tedre, 2016, p. 304). Instructors of courses where students can be more creative, such as music, are utilizing the ACRL Framework and incorporating more librarianship and library resources (Conor, 2016). Conor (2016) credited the ACRL Framework with assisting efforts to identify challenge areas and focus on student learning and engagement. Conor (2016) remarked, "The introduction of the Framework presents an opportunity for us as music librarians to build upon the deeply disciplinary work that we already do" (p. 21). Mullins (2016) noted, "an organized, systematic, and collaborative approach to embedding information literacy within academic courses results in an efficient and effective pedagogical approach to curriculum design" (p. 61).

Instruction of information literacy concepts can be difficult under the time constraints of one-shot workshops or training sessions (Djokic & Kargut, 2019). While library one-shot sessions can increase the students' capacity to find resources and evaluate them, students still find the synthesis and application of those resources to be a challenge (Napier, Parrott, Presley, & Valley, 2018). At the University of Utah, the transition from an in-person workshop delivered once to each section of a writing class to an online information literacy course resulted in many changes to instruction, increased

communication among faculty and staff, and a blending of instructional delivery (LeMire, 2016). The learning outcomes of the online information literacy course were aligned with the ACRL Information Literacy Competency Standards and mapped to the writing classes' learning objectives to ensure continuity and consistent pedagogy (LeMire, 2016). LeMire (2016) found not all faculty members felt comfortable answering questions regarding online information literacy courses as they did not feel they were the most appropriate authority; some faculty members did not have the same syllabi consistency, which made the mapping of the two courses difficult. Others lacked familiarity with the learning management system, Canvas, resulting in a significant increase in time for the library staff to train faculty on use and to provide technical support (LeMire, 2016).

While access to information changes, students and faculty still prefer librarians who are knowledgeable and comfortable with reference materials and services (Nath, 2015). Mullins (2016) recognized, "It is worth investigating the perceived trends that higher education librarians' niche within the academic landscape is morphing from managers of recorded information and emerging into instructional partners, teaching peers, collaborative faculty, and information literacy specialists" (p. 61). Barber (2014) stated, "Although, deconstructing these silo barriers may be completely unrealistic, we as scholars, teachers, and educational leaders can work to make the boundaries within our spheres of influence more permeable and allow for a greater degree of integration" (p. 15).

Wiebe (2015) explained students are more inclined to look at "surface" level information when overwhelmed with an abundance of sources or information (p. 52).

For students to have the most beneficial learning experience, library and discipline-specific faculty must become involved in the shaping of the internet by improving content and providing instruction for seeking credible information (McEneaney, 2015). Regarding information exchange, McEneaney (2015) posited rapid advances in the growth of the internet and search technologies “have led to a dramatic shift in the ecosystem of knowledge, the interdependent relationships between knowledge producers, transmitters and acquirers” (p. 802).

Institutional Information Related to this Study

The institution studied provides institutional data on their website updated annually in a publication titled *Factbook* (Dougherty, 2018). Data from *Factbook* revealed 63% of first-time students during the fall 2017 semester required one or more remedial developmental courses in either English, Reading, or Mathematics (Dougherty, 2018, p. 25). The subsequent breakdown of these data by subject can be found in Table 1.

Table 1

Remedial/Developmental Placement Scores for Fall 2017 at ABC College

Subject	Course Level	Percentage
English	Remedial/ Developmental	39%
	College-Ready	61%
Reading	Remedial/ Developmental	27%
	College-Ready	73%
Mathematics	Remedial/ Developmental	50%
	College-Ready	50%

Students placed into remedial/developmental courses see benefits from a contextual curriculum in which information literacy skills are embedded (Zimmerer, Troncoso Skidmore, Chuppa-Cornell, Sindel-Arrington, & Beilman, 2018). Challenges for at-risk students include unrealistic expectations about grades earned, stress faced when receiving grades, and the tendency to disconnect from the class when grades received do not meet expectations (Gabriel, 2008). Gabriel (2008) suggested implementing assessments that allow for different learning styles, utilizing rubrics, and allowing at-risk students to feel comfortable enough to ask for help or ask questions. In the world of postsecondary institutions, Morest (2015) noted a difference in faculty workload when comparing community college faculty to those at four-year institutions. If faculty scholarship increases, the authority of community colleges may be increased and could result in stronger instruction (Morest, 2015).

Archived college-wide outcomes assessment data from the institution studied provided much-needed context regarding information literacy. These data were provided by the Office of Institution Effectiveness and were aggregated from the 2015-2016 academic year through the 2017-2018 academic year. A college-wide outcome-based assessment was created by the faculty of the institution along with the rubric by which it is evaluated (SLIC, 2019). According to the college's *Institutional Effectiveness Manual*, "The assessment cycle allows the institution to take a focused approach to the college-wide outcomes and for the faculty to be intentional in their efforts to improve student learning across the institution" (SLIC, 2019, p. 47).

The faculty at the institution studied created and adopted information literacy as a college-wide outcome (SLIC, 2019). The college displays their college-wide outcomes

rubrics on their website (SLIC, 2019). According to the information literacy outcome, “The student will access and use information from multiple sources while evaluating their accuracy and credibility” (SLIC, 2019, p. 2). The faculty assess this outcome using a four-point rubric with three competency areas: Access Information, Use Information Appropriately to Accomplish a Specific Purpose, and Evaluate Information and Sources Critically (SLIC, 2019) (see Figure 1). Data are collected by the faculty from the general education CORE 42 curriculum, determined by Missouri requirements and analyzed by a faculty committee (SLIC, 2019). The process of collection and analysis is facilitated by the Office of Institutional Effectiveness for the institution (SLIC, 2019).

Since the 2015-2016 academic year, 446 students were assessed using the institution’s information literacy rubric (see Table 2). According to the *Institutional Effectiveness Manual* (2019), the competency nomenclature for rubrics at the institution include “No Evidence, Novice, Competent, and Mastery” (SLIC, 2019, p. 44). It is important to note students may be assessed in multiple courses using the same rubric (SLIC, 2019). This information, while duplicated, still has value to the institution, as a student may score differently based on knowledge of the subject, the assignment or assessment artifact, and potential varying degrees to which the concept and skills of information literacy are taught (SLIC, 2019). The college-wide outcomes assessment cycle for the institution includes steps within the cycle, a timeline, responsible parties, and a series of tasks within three distinct phases: Collection, Analysis, and Implementation (SLIC, 2019). The institution not only considered time for the collection and evaluation of data, but also for the implementation of interventions and improvements (SLIC, 2019).

Competencies	No Evidence	Novice	Competent	Mastery
Access information.	Does not access information to accomplish the purpose of the assignment.	Accesses information that fails to contribute to the purpose of the assignment.	Accesses information to accomplish the purpose of the assignment.	Accesses additional information to enhance the purpose of the assignment.
Use information appropriately to accomplish a specific purpose.	Does not use the required sources to accomplish the purpose of the assignment.	Uses the required sources appropriately but fails to accomplish the purpose of the assignment.	Uses the required sources appropriately to accomplish the purpose of the assignment.	Uses the required sources appropriately to accomplish the purpose of the assignment and makes further inferences/implications.
Evaluate information and sources critically.	Does not evaluate information and fails to assess the accuracy, authority, and timeliness.	Evaluates information but fails to assess accuracy and/or authority and/or timeliness.	Evaluates information to assess accuracy, authority, and timeliness.	Evaluates information to assess accuracy, authority, and timeliness and makes further inferences/implications.

Figure 1. Information literacy rubric used at ABC College as a college-wide outcome.

From the 2015-2016 academic year through the 2017-2018 academic year, 446 students were assessed across multiple disciplines and courses in information literacy using a faculty-created rubric with three competency areas: access information, use information appropriately to accomplish a specific purpose, and evaluate information and sources critically (SLIC, 2019). In the competency area of accessing information, 39% ($n = 176$) of students scored in the mastery performance level, 47% ($n = 208$) of students

scored in the competent performance level, 12% ($n = 54$) of students scored in the novice performance level, and 2% ($n = 8$) of students fell into the no evidence performance level (see Table 2). Thus, 86% of students assessed met or exceeded the criteria of accomplishing the accessing information.

Table 2

Information Literacy Scores: Aggregated from 2015-2016 through 2017-2018

Competency		No Evidence	Novice	Competent	Mastery	Total No. of Students
Access information	Raw Number of Students	8	54	208	176	446
	% of Sample	2%	12%	47%	39%	100%
Use information appropriately to accomplish a specific purpose	Raw Number of Students	9	79	202	156	446
	% of Sample	2%	18%	45%	35%	100%
Evaluate information and sources critically	Raw Number of Students	17	99	213	117	446
	% of Sample	4%	22%	48%	26%	100%

When analyzing the second competency area, using information appropriately to accomplish a specific purpose, 35% ($n = 156$) of students scored in the mastery performance level, 45% ($n = 202$) of students scored in the competent performance level, 18% ($n = 79$) of students fell into the novice performance level, and 2% ($n = 9$) of

students fell into the no evidence performance level. Overall, 80% of students scored in the competent and mastery performance levels. Additionally, students were evaluated in the third competency area, evaluate information and sources critically. Of the 446 students sampled, 26% ($n = 117$) reached the mastery performance level, 48% ($n = 213$) scored in the competent performance level, 22% ($n = 99$) scored in the novice performance level, and 4% ($n = 17$) scored in the no evidence performance level for this competency. Thus, 70% of students scored in the two performance levels indicating they met or exceeded this competency area (see Figure 2).

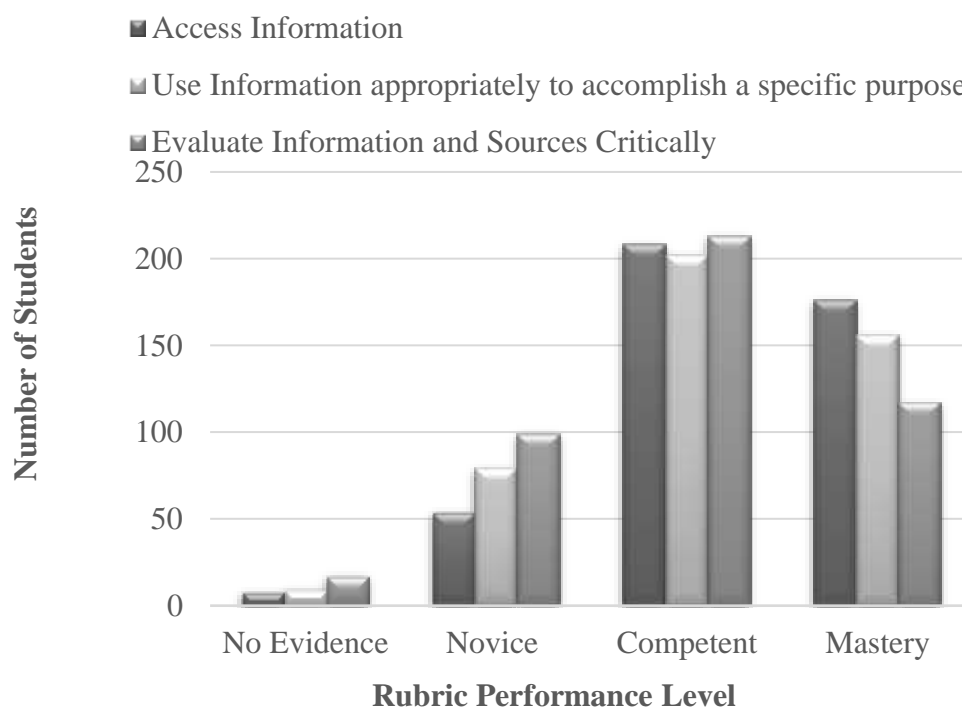


Figure 2. Information literacy totals by performance level.

From these data, it can be surmised most students fell within the competent performance level for all three competency areas of the college-wide outcomes rubric for information literacy; however, the focus of the college-wide outcomes assessment is to continually improve learning so that all students reach mastery (SLIC, 2019). A

significant percentage of students still performed in the no evidence and novice categories for all three competency areas (SLIC, 2019).

Of the 446 students assessed during the 2015-2016 academic year through the 2017-2018 academic year, 364 were assessed during a traditional 16-week semester (SLIC, 2019). In the competency area of accessing information, 41% ($n = 151$) of students scored in the mastery performance level, 46% ($n = 169$) scored in the competent performance level, 11% ($n = 38$) of students scored in the novice performance level, and 2% ($n = 6$) fell into the no evidence performance level. Thus, 87% of students assessed met or exceeded the criteria of accessing information. When analyzing the second competency area of those students who were assessed during a 16-week semester, 38% ($n = 137$) scored in the mastery performance level for using information appropriately to accomplish a specific purpose, while 44% ($n = 162$) scored in the competent performance level, 16% ($n = 58$) fell into the novice performance level, and 2% ($n = 7$) fell into the no evidence performance level. Thus, 82% of students scored in the competent and mastery performance levels for this competency area. Moreover, students in 16-week courses were also evaluated in the third competency area – evaluate information and sources critically. Of the 364 students sampled, 27% ($n = 97$) reached the mastery performance level, 49% ($n = 177$) scored in the competent performance level, 21% ($n = 78$) scored in the novice performance level, and 3% ($n = 12$) scored in the no evidence performance level for this competency. Thus, 76% of students scored in the two performance levels indicating they met or exceeded expectations in this competency area.

Fifty-four students of the total sample were assessed during an eight-week semester. In the competency area of accessing information, 19% ($n = 10$) of students

scored in the mastery performance level, 54% ($n = 29$) scored in the competent performance level, 26% ($n = 14$) of students scored in the novice performance level, and 2% ($n = 1$) fell into the no evidence performance level. In the second competency area, using information appropriately to accomplish a specific purpose, students were also assessed during an eight-week semester. Results indicated 17% ($n = 9$) of students scored in the mastery performance level for using information appropriately to accomplish a specific purpose, while 50% ($n = 27$) scored in the competent performance level, 31% ($n = 17$) fell into the novice performance level, and 2% ($n = 1$) scored in the no evidence performance level. Students who were enrolled in an eight-week course were also evaluated in the third competency area – evaluate information and sources critically. Of the 54 students sampled, 20% ($n = 11$) of students reached the mastery performance level, 39% ($n = 21$) of students scored in the competent performance level, 33% ($n = 18$) of students scored in the novice performance level, and 7% ($n = 4$) of students scored in the no evidence performance level for this competency.

Twenty-eight students were assessed during a four-week semester for information literacy. In the competency area of accessing information, 53% ($n = 15$) of students scored in the mastery performance level, 36% ($n = 10$) scored in the competent performance level, 7% ($n = 2$) scored in the novice performance level, and 4% ($n = 1$) fell into the no evidence performance level. When analyzing the second competency area of those students who were assessed during a four-week semester, 36% ($n = 10$) scored in the mastery performance level for using information appropriately to accomplish a specific purpose, while 46% ($n = 13$) scored in the competent performance level, 14% ($n = 4$) fell into the novice performance level, and 4% ($n = 1$) fell into the no evidence

performance level. Students in four-week courses were also assessed for the third competency area – evaluate information and sources critically. Of the 28 students sampled, 32% ($n = 9$) reached the mastery performance level, 53% ($n = 15$) scored in the competent performance level, 11% ($n = 3$) scored in the novice performance level, and 4% ($n = 1$) scored in the no evidence performance level for this competency.

Another perspective through which to view the information literacy college-wide outcomes assessment data is by modality. ABC College found that separating by the three most-widely used modalities at the institution – face-to-face, online, and interactive television – was helpful for actionable improvements (SLIC, 2019). Of the total sample, 249 students were assessed in the face-to-face modality (SLIC, 2019). The subsequent performance level scores for each competency area in the face-to-face modality can be found in Table 3. The second modality to view information literacy assessment scores is online; 43% ($n = 190$) of the total 446-student sample were assessed online (SLIC, 2019). The majority of students assessed in the online modality scored in the competent and mastery performance levels (SLIC, 2019).

The final modality, interactive television, resulted in a small sample size (SLIC, 2019). This was due to two factors: (1) fewer courses offer the interactive television modality as compared to face-to-face and online modalities, and (2) ABC College utilizes a cycle for course selection to relieve assessment fatigue among the faculty for the interactive television option (SLIC, 2019). Additionally, the institution studied enrolls a significant number of students who are dual-credit students from area rural high schools (SLIC, 2019). Currently, the institution has yet to assess dual-credit students as part of the college-wide outcomes assessment for the information literacy outcome (SLIC,

2019). Of the total 446 students assessed, 2% ($n = 7$) participated in the interactive television modality (SLIC, 2019).

Furthermore, the Chief Student Services Officer reported there were 60 academic complaints to her office during 2017. Of those, 2% ($n = 1$) involved plagiarism in some capacity (A. Matthews, personal communication, May 23, 2019). The Chief Student Services Officer also provided additional anecdotes regarding plagiarism by explaining students were being disciplined/corrected for plagiarism within the class and were not reported to any centralized point of contact (A. Matthews, personal communication, May 23, 2019). Upon learning this information, the faculty were asked to report all plagiarism to the Chief Student Services Officer, but only one additional report of plagiarism had been reported (A. Matthews, personal communication, May 23, 2019). The Chief Student Services Officer also added that at this point, staff began to emphasize plagiarism during Housing Student Orientation sessions when going over the Student Code of Conduct for the institution (A. Matthews, personal communication, May 23, 2019). The Chief Student Services Officer for the institution stated:

I feel the faculty are still taking care of [plagiarism] within their class and not reporting. I do think it is still a problem, but not a huge problem. Until we get a true picture of how many students [need correction] and [the number of] times for each student [to which] they are plagiarizing, I cannot tell if our improvements are actually working. (A. Matthews, personal communication, May 23, 2019)

At ABC College, a standing committee of faculty called the Student Learning Improvement Committee (SLIC) is actively involved with assessment, including the analysis, feedback, and promotion of student learning through assessment. In addition to

servicing as a peer review panel for programmatic reviews and annual student learning outcomes reports from the program faculty, the SLIC also serves as a collective of faculty champions for the college-wide outcomes assessment to improve the curriculum (SLIC, 2019). This committee is chaired by the Chief Academic Officer and works closely with the Office of Institutional Effectiveness (SLIC, 2019).

An executive summary report was created for the 2017-2018 college-wide outcomes assessment of cultural awareness and information literacy and placed on the institutional effectiveness website for the institution (SLIC, 2019). Contained in this report are assessment data for the academic year, instructor feedback from those who administered the assessment, and individual analysis of the data by SLIC members intended to inform the faculty and promote improvement of student learning across the institution (SLIC, 2019). Below are excerpts from the SLIC report regarding instructor feedback from administering the assessment, as well as SLIC member analysis of the data collected during the 2017-2018 academic year.

Instructors who participate in the college-wide outcomes assessment of information literacy are asked three questions at the end of a survey link: 1) What did you learn from this assessment? 2) Will you make any changes based on the results of this assessment? 3) Do you have any additional feedback regarding this assessment? (SLIC, 2019). During the spring 2018 semester, an instructor responded to question one, “The students are generally able to understand what they read. They are not, however, able to evaluate it” (SLIC, 2019, p. 23). Another faculty member responded, “Online students are doing just as well as face-to-face students on this assignment” (SLIC, 2019, p.23).

The faculty members were also asked what changes they planned to make in future semesters after administering the assessment (SLIC, 2019). Faculty member responses included explaining written instructions, modifying components of the assignment, and providing more opportunities for students to evaluate assignments to increase analytical thinking skills (SLIC, 2019). No responses were given for additional feedback during the spring 2018 collection (SLIC, 2019). During the summer 2018 collection for the option to provide additional feedback, a faculty member responded, “I think the rubric needs to be tweaked” (SLIC, 2019, p. 28).

Members of the SLIC were asked to provide their feedback regarding improving student learning in the area of information literacy (SLIC, 2019). One committee member reported:

On average, our students fall into the “Competent” category for Information Literacy. However, a surprising number of students are still novices or show no evidence for these criteria. Over the three-year trend, students have not really improved significantly at accessing or using information and have shown only slight improvement at evaluating information sources critically. (SLIC, 2019, p. 45).

Another faculty member also provided feedback that alluded to confusion or challenge with the rubric criteria:

We seem to be stalling out right at the threshold between Competent and Mastery. The rubric definitions emphasize what I would call “ownership” of the content by students. Each category measures how far students go beyond the required level of information use and access. With that definition, I would only expect to see

that mastery in assessments inside courses where students have self-selected that course in their chosen major or program (SLIC, 2019, p. 45).

Additionally, SLIC members were asked specifically about the data for each performance level of the rubric related to the competency areas and rubric criteria (SLIC, 2019).

Noted throughout the analysis of information literacy by the SLIC were recommendations regarding the use of the library by students to receive assistance (SLIC, 2019). When asked how to improve learning for students who scored in the no evidence column, a faculty member noted:

At this level, we're talking about motivating and engaging students. If they fall into the "No evidence" category for information literacy, they don't access the information at all, don't use the required sources to accomplish the purpose of the assignment, and don't evaluate the information or assess its accuracy, authority, or timeliness. These students may need more support than most. Encourage the student to utilize resources that are available to them: free tutoring in the Tutoring and Learning Center and/or ACHIEVE, visit the library and have a librarian guide them through the research process, etc. (SLIC, 2019, p. 45).

While the previous feedback revealed students should utilize campus resources, another faculty member suggested confusion regarding administration and assessment design:

...I think that when we are talking about students who do the assessment but can't attain even novice-level achievement, we are talking about a disconnect in instructions, implementation, and/or student engagement. Some of the comments from instructors make me believe that this rubric is attached to an assignment designed for the rubric rather than the rubric simply being placed alongside an

existing assessment. If instructors are adding an assignment to cover the rubric, that assignment is likely out of sync with the overall curriculum, inserted at an inopportune time and/or otherwise deemphasized in the course. This could persistently drive down student commitment to the assignment. (SLIC, 2019, p.46).

The SLIC continued to provide feedback regarding each performance level throughout the report, noting specifically that resources such as the library are a benefit to students (SLIC, 2019). However, one member called on the faculty directly, by encouraging a review of assignments and rigor of curriculum:

These rubric definitions require students go “above and beyond” the stated purpose of the assignment. Students deep into their program or major will be more likely to do this on their own. In generally required courses, instructors must emphasize ownership and engagement. Allowing students free reign to choose topics or allowing alternative pathways to completing assignments may provide more opportunities to lure these students into going the extra mile. (SLIC, 2019, p. 47).

These excerpts from the report are only a few examples of feedback and insight this committee provided to the faculty regarding information literacy and the improvement of student learning.

According to the Library Public Services Coordinator at the institution studied, library staff offer information literacy sessions to faculty and students upon request (S. Ward, personal communication, May 22, 2019). In a study of 244 students enrolled in an undergraduate general education course, Miller (2018) revealed participation in library

instructional workshops correlated with higher rubric scores for information literacy. During the 2017-2018 academic year, 31 class sections of 10 different courses took advantage of library instructional workshops (S. Ward, personal communication, May 22, 2019). Of the 10 courses that included information literacy sessions, 40% ($n = 4$) were from the general education curriculum, while another 40% ($n = 4$) were programmatic courses (S. Ward, personal communication, May 22, 2019). Another 10% ($n = 1$) of participating courses were from the remedial developmental curriculum at the institution, and the last 10% ($n = 1$) was a college-level course designed to be a co-requisite to the remedial developmental curriculum (S. Ward, personal communication, May 22, 2019). Also, of the 31 sections that participated, 45% ($n = 14$) of information literacy sessions were in the ACAD 101: Academic Life Strategies course (see Table 3) (S. Ward, personal communication, May 22, 2019).

Through a personal communication with the Chief Academic Officer of the institution studied, supplemental information was received from library staff. The Chief Academic Officer provided the number of course sections offered by the institution during the 2017-2018 academic year that received an information literacy session from the library (J. O. Hoggard, personal communication, May 22, 2019). While 45% ($n = 14$) of information literacy sessions were held in ACAD 101: Academic Life Strategies classes, this was 22% ($n = 14$) of the total number of sections offered by the institution during the 2017-2018 academic year (see Table 3). Of the four general education courses that included information literacy sessions, PHYS 100: Introduction to Physics and PHYS 101: Physical Science had the most participating sections. The other two general

education courses with some sections including information literacy sessions were ENGL 111: College Writing and SCOM 110: Public Speaking.

Table 3

Information Literacy Sessions Provided by Library Staff at ABC College

Course or Program Cohort	Course Type	# of sections who utilized IL session	# of sections offered during 2017-18	% of sections who received IL Session
ACAD 101: Academic Life Strategies	College-Level Co-Requisite to Remedial Developmental	14	64	22%
BUED 203: Business Communications	Programmatic	2	2	100%
EMDS 105: Emergency Medical Services I	Programmatic	1	2	50%
ENGL 02: Transitional College Writing	Remedial Developmental	3	41	7%
ENGL 111: College Writing	General Education	1	90	1%
MKTG 115: Principles of Marketing	Programmatic	1	2	50%
PHYS 100: Survey of Physics	General Education	2	2	100%
PHYS 101: Physical Science	General Education	3	15	20%
PNRS 105: Personal and Vocational Concepts	Programmatic	1	2	50%
SCOM 110: Public Speaking	General Education	3	72	4%

Summary

In Chapter Two, numerous studies regarding information literacy were presented. It is important to collaborate regarding learning outcomes, as researchers have revealed challenges in teaching a large number of outcomes during a traditional class period (Douglas & Rabinowitz, 2016). Faculty and academic librarians have invited a third entity to the collaborative effort to improve student learning in information literacy – the writing center (Napier et al., 2018). The research presented provided an overview of the concept of information literacy, the role of librarians, faculty roles and instructional design, and best practices. Moreover, additional literature was examined regarding information literacy initiatives and information literacy transference in today's workforce. In addition, this information provides support for the importance of teaching and learning information literacy skills in higher education. Chapter Three of this study focuses on methodology. An explanation for the instrumentation and design are provided in the next chapter.

Chapter Three: Methodology

The use of case studies requires an in-depth analysis of a specific case, bounded by time, and with multiple approaches to data gathering (Creswell, 2014). Research conducted using a survey in a case study is a way to quantify or “provide a numeric description of trends, attitudes, or opinions of a population by studying a sample of that population” (Creswell, 2014, p. 155). Inferences from this study’s sample were made to make determinations regarding the population as a whole (Creswell, 2014). This study was designed with a focus on specific dynamics at a point in time at one institution (Fraenkel et al., 2015).

A holistic approach to this study provided for the investigation of multiple types of data to explore the utilization of library resources by faculty, the level of emphasis placed by faculty on the use of those resources within the curriculum, and student achievement scores across the college curriculum. The institution studied displays an executive summary from a faculty committee on the college website, including faculty analysis and feedback on the assessment of information literacy, which was used to provide additional information and context for this study.

Archival perceptual data from an annual survey administered to faculty on behalf of the library were examined. Additionally, college-wide learning outcomes assessment data for information literacy were analyzed, as was an executive summary report from a faculty committee containing analysis and feedback on the college-wide learning outcomes assessment. Next, faculty responsible for general education curriculum and assessment were surveyed, using an adapted survey from a previous study, to elicit current perspectives and emphasis on information literacy within the curriculum. Some

supplemental data from the Chief Academic Officer, Chief Student Services Officer, and Library Staff for the institution were also utilized to support findings. For the sake of accessibility and convenience for the participants, the survey was administered electronically to participating faculty members using the Lindenwood University-housed metric, Qualtrics. This administration was anonymous, and distinguishing data collected within the survey were used to provide categorical delineation.

Problem and Purpose Overview

Utilized in this study were archival data from a Missouri community college concerning faculty use of learning resources and services in the library and college-wide learning outcomes assessment scores; specifically, the assessment of student learning in the area of information literacy. Moreover, the institution provides an executive summary on their website including faculty analysis and feedback that were also informative to this study. A survey of the faculty was administered to gather data concerning perceptions of information literacy, library resources and services, and the role of information literacy within the curriculum. The ultimate purpose of this study was to determine baseline data of the current state of teaching and learning in the outcome area of information literacy at a specific institution. This information provides an overview of existing and situational data for this institution to begin dialogue and collaboration to improve the teaching and learning of information literacy.

Research questions. The following research questions guided this study:

1. What is the perception of faculty toward incorporating information literacy within their disciplines?
2. What is the extent to which faculty collaborate with library staff?

3. What institutional challenges do faculty express regarding information literacy?

Population and Sample

The population for this study included full-time faculty who teach in community colleges in Missouri. The participating institution has approximately 36 full-time members of the faculty who teach in the areas Missouri considers part of the 42-hour General Education Core (J. O. Hoggard, personal communication, July 3, 2018). These 36 faculty members were the sample for this study. Fraenkel et al. (2015) described purposive samples as “the use of judgment to select a sample, based on prior information, to provide the data needed to draw conclusions” (p. 101). According to the Student Learning Improvement Committee report, these faculty members teach the courses listed in Figure 3 below as part of the CORE-42 (SLIC, 2019).

Core Curriculum Transfer (CORE 42) General Education (Gen Ed) Program

A minimum of forty-two general education (Gen Ed) hours must be selected according to the following guidelines. The CORE 42 block of general education (Gen Ed) credit is consistent with the statewide general education transfer curriculum and is part of the Associate of Arts degree. Students must select course offerings from each general education component indicated below and meet the minimum hours required in each component.

I. Written and Oral Communication (total hours: 9)

1. ENGL 111 College Writing
2. ENGL 112 Advanced College Writing (ENGL 111 prerequisite with C or better)
3. SCOM 110 Public Speaking

II. Fine Arts and Humanities (total hours: 9) Required to be from two different disciplines

A. Fine Arts: (One course from the following)

1. ARTS 123 History and Appreciation of Art
2. MUSC 123 History and Appreciation of Music
3. MUSC 141 Theory I, Harmony (intended Music majors only)
4. THEA 120 History and Appreciation of Theatre
5. THEA 122 History and Appreciation of Film

B. Humanities: (Two courses from the following)

1. ENGL 210 Introduction to Literature
2. ENGL 221 World Literature to 1600
3. ENGL 222 World Literature since 1600
4. ENGL 231 English Literature to 1798
5. ENGL 232 English Literature since 1798
6. ENGL 241 American Literature to 1870
7. ENGL 242 American Literature since 1870
8. MUSC 221 Music Literature I
9. MUSC 222 Music Literature II
10. PHIL 200 Introduction to Philosophy
11. PHIL 233 Ethics
12. PHIL 243 Religions of the World
13. SPAN 101 Elementary Spanish I
14. SPAN 102 Elementary Spanish II

III. Life and Physical Sciences (minimum total hours: 7)

Two courses required, one from life sciences and one from physical sciences; one of the two courses must have a laboratory component.

Life Science

1. BIOL 100 Survey of Biology
2. BIOL 101 General Biology*
3. BIOL 102 Environmental Science*
4. BIOL 110 Human Biology
5. BIOL 190 Biology for Majors*
6. BIOL 231 Anatomy and Physiology I*

Physical Science

1. CHEM 111 Introductory Chemistry*
2. CHEM 121 General Chemistry I*
3. PHYS 100 Survey of Physics
4. PHYS 101 Physical Science *
5. PHYS 211 General Physics I*

*Laboratory Component

IV. Mathematics (total hours: 3) (One course from the following)

1. MATH 161 Mathematical Reasoning and Modeling
2. MATH 163 College Algebra for Calculus

V. Social and Behavioral Sciences (total hours: 9)

A. Take two courses below.

1. GOVT 121 National and State Government
2. HIST 111 American History to 1877 - OR -
HIST 112 American History since 1877

B. Social Sciences: (One course from the following)

1. ECON 211 Principles of Macroeconomics
2. ECON 212 Principles of Microeconomics
3. GOVT 233 International Relations
4. HIST 111 American History to 1877
5. HIST 112 American History since 1877
6. HIST 121 World Civilization to the Renaissance
7. HIST 122 World Civilization since the Renaissance
8. PSYC 111 General Psychology
9. PSYC 243 Human Development Across the Life Span
10. SOCI 111 General Sociology

VI. Other (2-5 additional hours from courses listed above)

intended Music majors may take one hour from the following:

1. MUSC 1011 Three Rivers Symphonic Band
2. MUSC 1021 Three Rivers Jazz and Pep Band
3. MUSC 1031 Three Rivers Chorus



Figure 3. CORE 42 courses at ABC College. From College Catalog (2019, p. 49).

These faculty have experience, expertise, and knowledge about the curriculum, including the decision to place emphasis on information literacy as a college-wide learning outcome embedded within all respective departments and courses. Secondary

data of college-wide outcomes collected by the institution were used to provide context to the study. The data included academic years from 2015-2016 to 2017-2018.

Instrumentation

Weiner (2014) conducted a 10-question survey titled *Survey on Integration of Information Literacy in Purdue Courses* at Purdue University in 2014 “to better understand the extent to which teaching information literacy concepts by faculty occurred in a research university” (p. 5) (see Appendix A). Permission to use this survey was obtained from Dr. Weiner (see Appendix B) prior to seeking approval by the Lindenwood University Institutional Review Board (see Appendix C). Archival student information literacy scores from the college-wide learning outcomes assessment were analyzed, along with an executive summary report from a faculty committee regarding this college-wide outcomes assessment after obtaining IRB approval and permission from the institution being studied (see Appendix D). Additional data from the institution included archival data from library surveys administered to faculty and personal communications with the Chief Academic Officer, Chief Student Services Officer, and Library Staff.

Data Collection

Data collection began upon approval of the Lindenwood University Institutional Review Board and the participating institution. After permission was granted, archival data from the institution were examined. The researcher worked closely with the Office of Institutional Effectiveness at the institution studied to obtain email addresses, to administer the survey at an appropriate time for the assessment calendar for the institution, and to coordinate the processes of this study to assure participant anonymity and maintain the integrity of the data and institution. Each participant received a consent

form and survey via electronic communication (see Appendix E). The timeframe for the survey remained open for two weeks with a reminder email sent midway through the collection timeline. All emails were sent with permission of the Office of Institutional Effectiveness for the institution using the collection feature of the metric software provided by Lindenwood University (see Appendix F). The responses were collected through the Lindenwood University-housed metric, Qualtrics.

Data Analysis

Data were collected using the survey software Qualtrics, which allowed for anonymity of the participants in the study and provided statistical analysis. This investigation was structured utilizing a holistic approach while requiring inductive analysis and design flexibility (Fraenkel et al., 2015). Analysis occurred for all datasets with triangulation to improve the teaching and learning of information literacy at a specific institution. Triangulation “involves using different methods and/or types of data to study the same research question” (Fraenkel et al., 2015, p. 557). By reviewing survey data results from instruments with different focuses along with college-wide outcomes data, the study can triangulate the varied points of data to research the appropriate research questions of this study.

Once data were collected, survey results were reported descriptively. Additionally, information literacy college-wide learning outcomes assessment scores of students, previously shared in Chapter Two, were analyzed to determine the current state of information literacy instruction at the institution. Archival data from an executive summary report containing analysis and feedback of this college-wide learning outcomes assessment and personal communications with key institutional employees provided

supportive and contextual data for this study. Descriptive statistics allowed for the analysis of research questions to reveal to what extent faculty collaborate with library staff and among each other and to describe which institutional challenges faculty identified regarding information literacy. According to Bernhardt (2017), a crucial part of continuous school improvement is the collection of perceptual data to allow for consideration of what is most important to stakeholders within an institution. The institution from which the sample was taken uses descriptive statistics to determine the quartile range of students' achievement based on a four-point rubric (SLIC, 2019).

Ethical Considerations

To assure anonymity of the participants, identities were not recorded, and responses were housed in a locked filing cabinet at an off-campus location. Each survey was presented with a consent form regarding the nature of the study, use of the information collected, any associated risks, and the opportunity to opt out of the study at any time. According to the American Educational Research Association (AERA) (2018) Code of Ethics, "Education researchers strive to maintain the highest levels of competence in their work; they recognize the limitations of their expertise; and they undertake only those tasks for which they qualify by education, training, or expertise" (p. 12).

Summary

In Chapter Three, the methodology of the study was explained. A discussion of the population and sample was followed by information concerning the survey instrument. Additional information regarding the process of assessment at the institution was also provided to further explain the information and literature review of Chapter Two

and to provide context when analyzing this information in conjunction with survey responses in Chapter Five. Data collection procedures were detailed, and data analysis processes were specified.

While there is a vast amount of research on the topic of information literacy in higher education, academic librarians struggle to impress upon their academic colleagues the importance of information literacy and the relationship of information literacy assessment as it relates to student success and learning (Fullard, 2016). To provide additional insight, the focus of the study included exploring information literacy at ABC College by obtaining faculty perspectives and identifying areas for improving student learning in the area of information literacy. By using the archival data from a specific institution, the examination of all areas of higher education will allow this institution's faculty to delve into the heart of the issue and identify their role in improving this student learning outcome and tailoring interventions for students.

Chapter Four: Analysis of Data

The results of this quantitative case study are described in Chapter Four. The purpose of this study was to explore the connection between library services and resources and to elicit faculty perspectives about information literacy at a community college in Missouri. This chapter contains the quantitative data collected and analyzed to address the research questions. Questions guiding this research were based on previous data released by the institution that coincide with teaching information literacy. Archival data from the institution include past years' survey data regarding the satisfaction and use of the library by faculty.

Data were collected from a specific community college in Missouri. For the purpose of triangulation, archival data were derived from surveys annually administered to faculty across the institution regarding the use of and satisfaction with the campus library and its services. The faculty surveys regarding the library were initiated by the library staff and facilitated by the Office of Institutional Effectiveness (J. O. Hoggard, personal communication, June 13, 2019). The faculty survey data analyzed by the Office of Institutional Effectiveness are disseminated back to the library staff for the purpose of planning and continuous improvement (J. O. Hoggard, personal communication, June 13, 2019). Also, to provide context to this study, college-wide outcomes assessment data for information literacy at the institution were introduced in Chapter Two and are triangulated for analysis in Chapter Five. The Information Literacy Needs Assessment Survey, adapted from a survey created by Dr. Sharon Weiner of Purdue University, was administered to 31 full-time faculty members who teach within the general education program regarding information literacy at the institution and their perceived role in the

teaching and learning of this concept and skill. An electronic survey link, along with informed consent information, was emailed to each faculty member along with pertinent information regarding the study using the survey software platform Qualtrics. Twenty-one survey responses were collected. The faculty members who were selected to participate in this study are responsible for the college-wide outcomes assessment of information literacy at the institution.

Information Literacy Needs Assessment Survey

The first data presented in this chapter were collected via the Information Literacy Needs Assessment Survey. Individual email addresses were provided by the Office of the Chief Academic Officer for the institution studied. Twenty-one survey responses were collected. Each faculty discipline of the general education curriculum at the institution was represented in this survey (see Figure 4). Further, a wide range of teaching experience at the postsecondary level was also represented within this sample (see Figure 4).

Demographic questions.

Survey question nine. What is your discipline affiliation at ABC College?

Of the 19 responses from the collected sample, 37% ($n = 7$) indicated their affiliated discipline was science, 26% ($n = 5$) of participants identified with the languages/communications department, 16% ($n = 3$) identified themselves with mathematics, 16% ($n = 3$) indicated the social sciences department, and 5% ($n = 1$) indicated fine arts (see Figure 4).

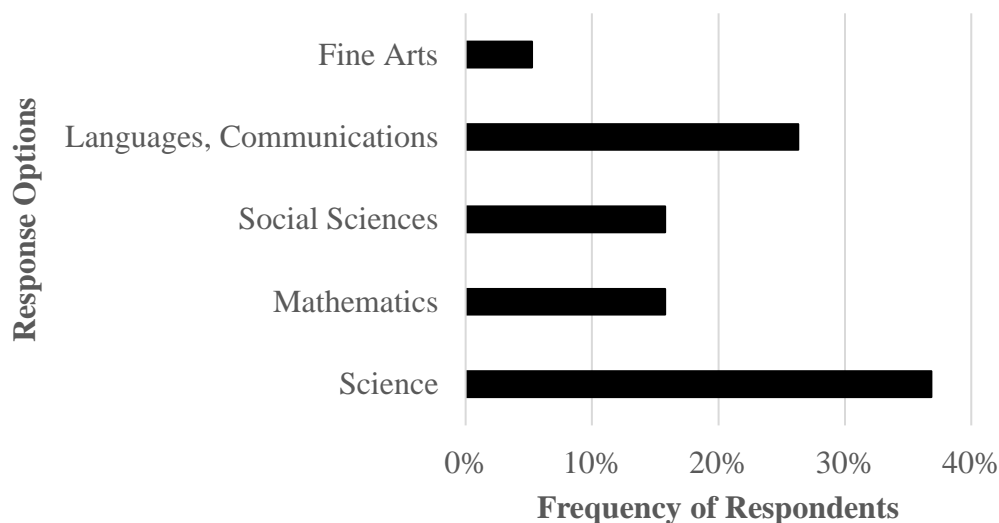


Figure 4. Faculty response to discipline affiliation.

Survey question 10. How many years of experience do you have teaching at the postsecondary level?

The resulting responses were categorized into the following categories: 20+ years, 15-19 years, 10-14 years, 5-9 years, and less than 5 years. Twenty responses were collected for this question. Thirty percent ($n = 6$) of faculty members participating indicated they had been teaching for more than 20 years at the postsecondary level, 25% ($n = 5$) of faculty had been teaching between 10-15 years, 20% ($n = 4$) had been teaching 15-19 years, another 20% ($n = 4$) of participants had taught between 5-9 years, and 5% ($n = 1$) had taught less than 5 years (see Figure 5).

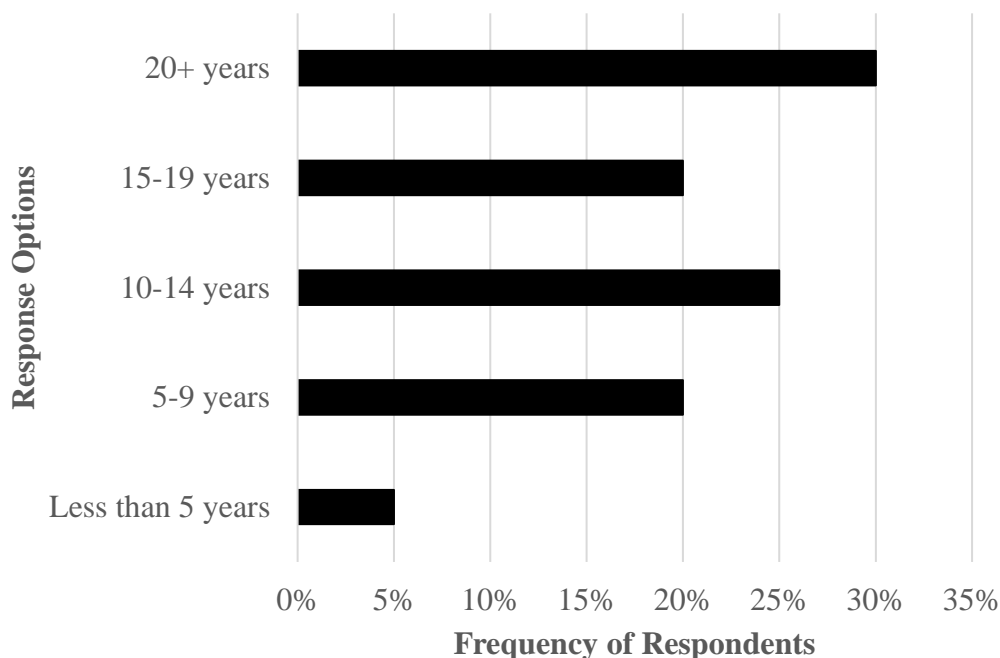


Figure 5. Faculty response to number of years teaching at postsecondary level.

Research question one. What is the perception of faculty toward incorporating information literacy within their disciplines?

Questions from the Information Literacy Needs Assessment Survey were administered to aid in answering research question one, specifically survey questions 1-7. The Chief Student Services Officer provided additional insight through a personal communication regarding plagiarism at the institution to coincide with question seven of the Information Literacy Needs Assessment Survey.

Survey question one. Do you teach information literacy in your undergraduate courses?

Of the 20 responses from the collected sample, 85% ($n = 17$) of faculty participants indicated yes, they do teach students information literacy concepts or ideas in

their respective courses. Thus, 15% ($n = 3$) of respondents reported they do not teach information literacy concepts or ideas within their courses.

Survey question two. Do you require students to prepare papers or presentations for any of your undergraduate classes?

This question resulted in 76% ($n = 16$) of faculty respondents selecting yes, they do require students to prepare papers or presentations for their undergraduate classes. Therefore, 24% ($n = 5$) of respondents reported they do not require students to prepare papers or presentations.

Survey question three. How do undergraduate students in your courses learn to define a topic for a course project?

Of the 38 responses from the collected sample, 37% ($n = 14$) of faculty indicated they provide the instruction for defining a topic, while 21% ($n = 8$) of participating faculty expected students to know this skill before taking the course. Eighteen percent ($n = 7$) of responses revealed faculty assign a project topic, and 16% ($n = 6$) selected *other faculty teach this skill*. Thus, 8% ($n = 3$) of faculty instructors selected *a librarian collaborates with me on teaching this skill* (see Figure 6).

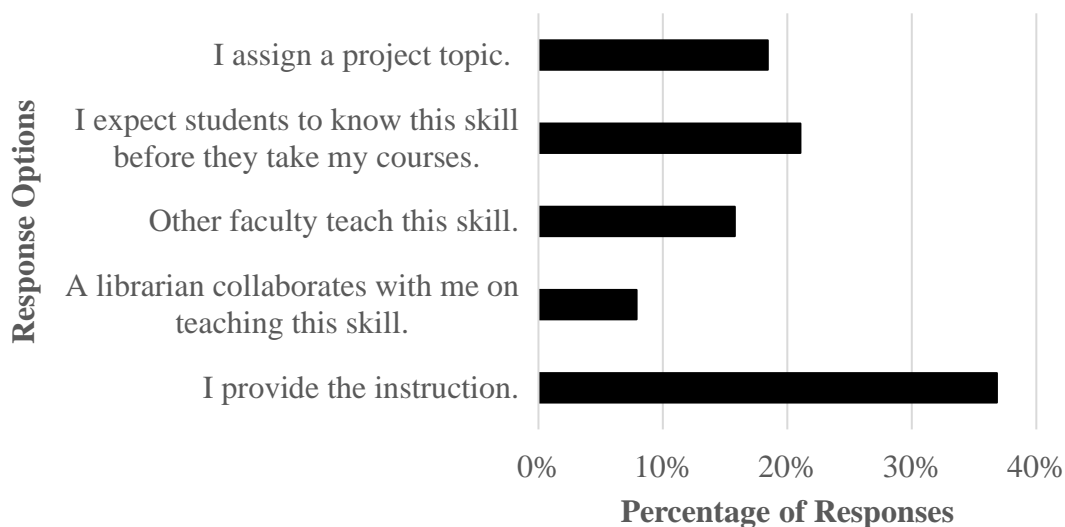


Figure 6. Faculty response to how students learn to define a topic for a course project.

Survey question four. How do undergraduate students in your courses learn to effectively and efficiently find journal articles or books for your courses, other than those you have assigned?

Faculty who responded could select all that applied for survey question four. From the 33 responses collected in the sample, 39% ($n = 13$) of faculty participants selected *instructor provides the instruction for teaching students to effectively and efficiently find journal articles or books for their courses*. Also, 24% ($n = 8$) of faculty selected *a librarian collaborates with them on teaching this skill*, 24% ($n = 8$) of faculty respondents indicated *other faculty teach this skill*, and 12% ($n = 4$) noted they expect students to know this skill before they take their course(s) (see Figure 7).

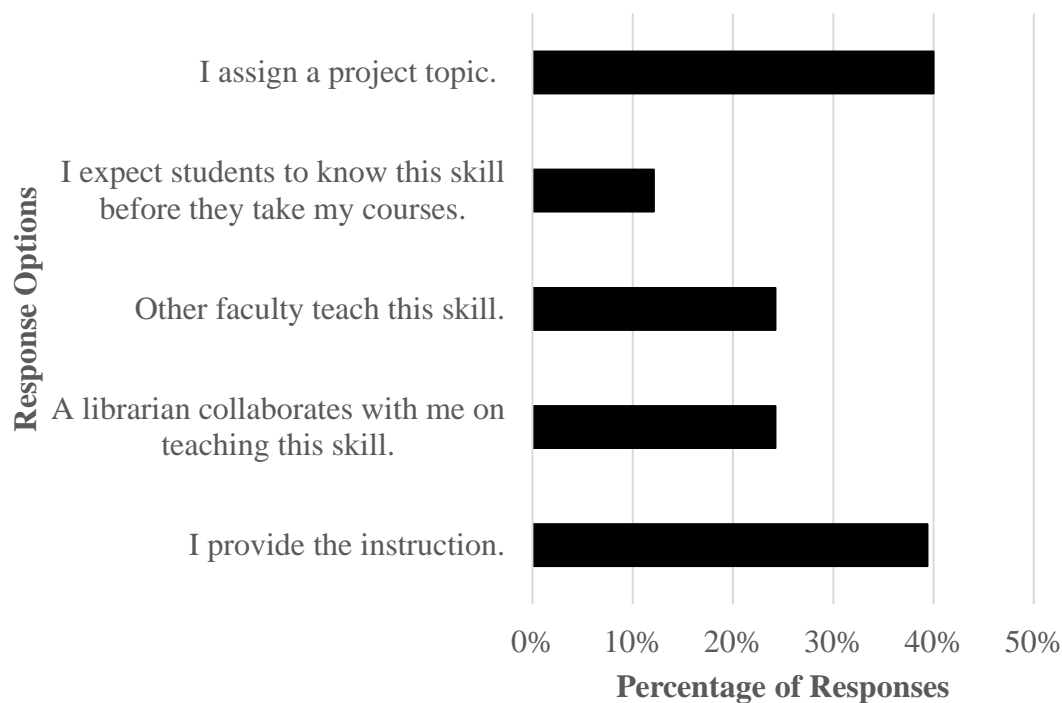


Figure 7. Faculty response to how students find journal articles or books.

Survey question five. How do undergraduate students in your courses learn to critically evaluate journal articles or books for your courses, other than those you have assigned?

When faculty were asked how students critically evaluate journal articles or books for their courses, they were permitted to select all applicable responses. Of the 31 answers chosen, 52% ($n = 16$) selected *faculty provide this instruction*, 19% ($n = 6$) of respondents indicated they expected students to *know this skill before they take their courses*, 16% ($n = 5$) of faculty participants indicated *other faculty teach this skill*, and 13% ($n = 4$) of responses indicated *a librarian collaborates with the faculty member on teaching this skill* (see Figure 8).

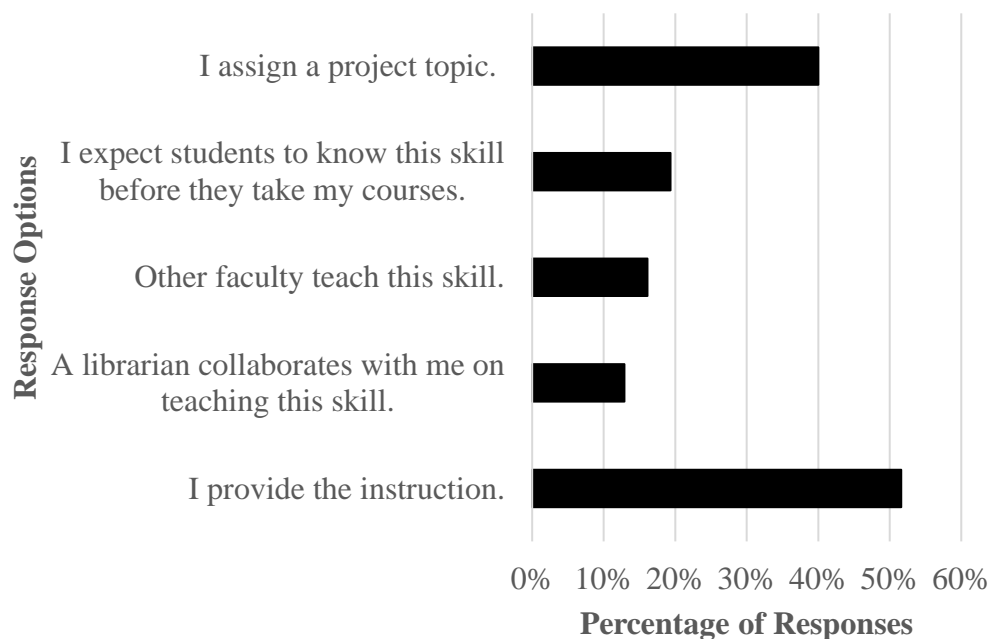


Figure 8. Faculty response to how students evaluate journal articles or books.

Survey question six. How do undergraduate students in your courses learn to synthesize information into papers and presentations?

Faculty were allowed to select all applicable responses. Thirty-two responses were collected from the faculty sampled, and of those, 47% ($n = 15$) of respondents indicated they *provide the instruction for this skill*. Additionally, 19% ($n = 6$) of faculty participants rely on *other faculty to teach the skill*, while 16% ($n = 5$) of faculty *expect students to know this skill before they take their courses*. Thus, 12% ($n = 4$) of faculty selected *a librarian collaborated with them on teaching this skill*, and 6% ($n = 2$) of faculty *expect students to learn this skill on their own* (see Figure 9).

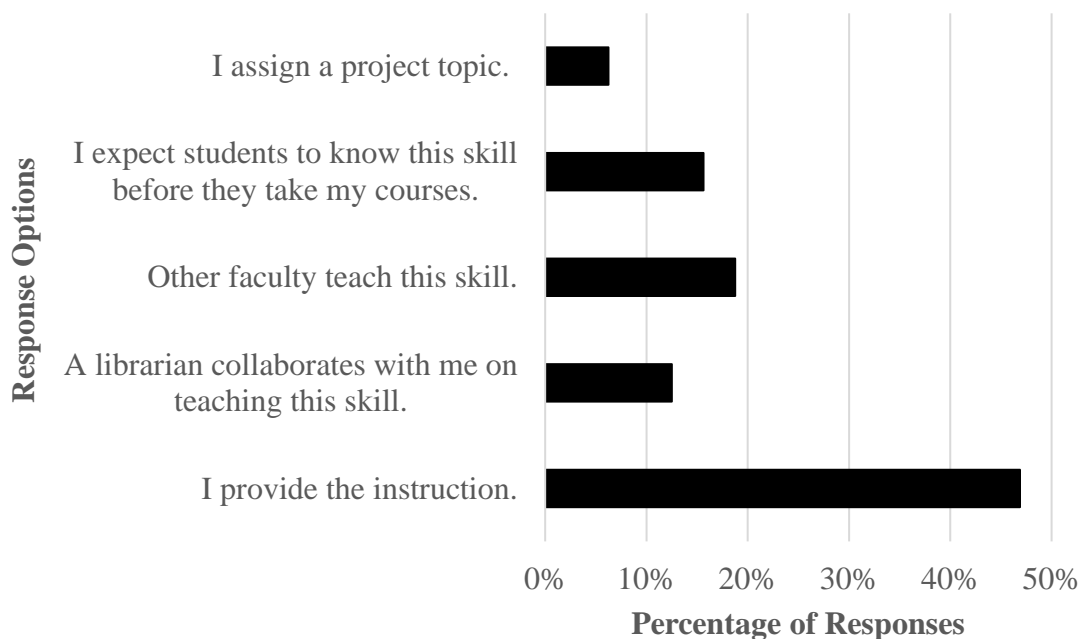


Figure 9. Faculty response to how students learn to synthesize information.

Survey question seven. How do undergraduate students in your courses learn about avoiding plagiarism?

Of the 35 responses from the collected sample, 43% ($n = 15$) of faculty indicated *they provide this instruction*, while 23% ($n = 8$) of faculty respondents *expect students to know this skill before they take their courses*, and 17% ($n = 6$) noted *other faculty teach this skill*. Moreover, 11% ($n = 4$) of faculty *expect students to learn this skill on their own*, while 6% ($n = 2$) of faculty *collaborate with a librarian to teach this skill* (see Figure 10).

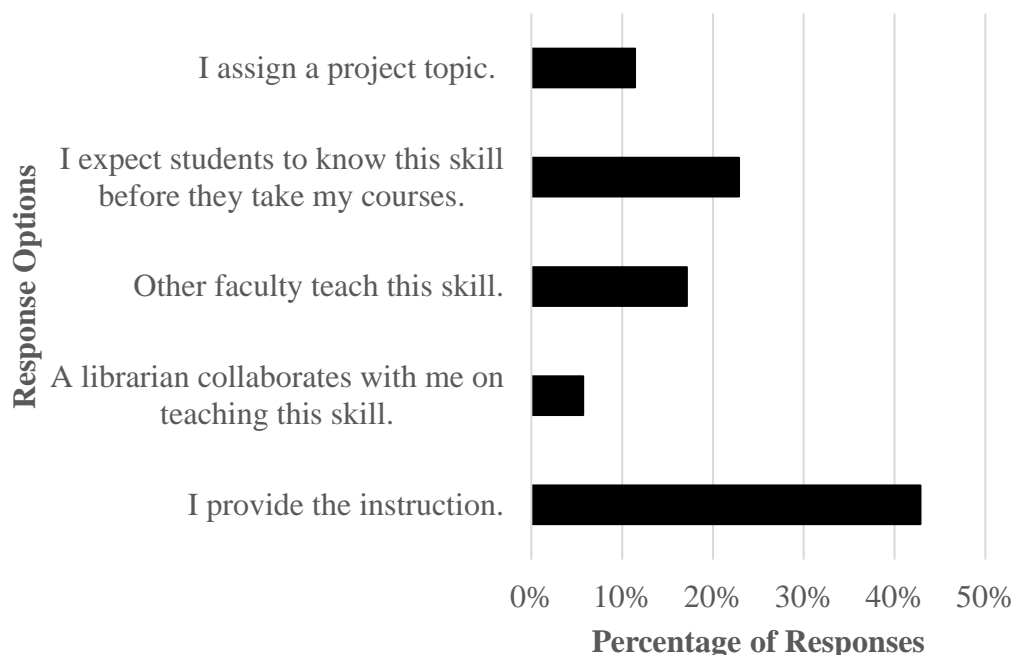


Figure 10. Faculty response to how students learn about avoiding plagiarism.

To synthesize this information further, the raw data were extracted and sorted based on faculty responses to survey questions 3-7 in an effort to highlight specific information literacy instructional skills. The figures that follow are the results of this data mining to capture a more comprehensive view of information literacy instruction at the institution studied. The information literacy skills included within this Information Literacy Needs Assessment Survey were the following:

- Define a topic
- Effectively and efficiently find journal articles or books
- Critically evaluate journal articles or books
- Synthesize information into papers and presentations
- Avoid plagiarism

Of the 20 faculty who responded to this survey, 70% ($n = 14$) of participants indicated they provide the instruction for defining a topic, 65% ($n = 13$) responded they provide instruction on effectively and efficiently finding journal articles, and 80% ($n = 16$) of faculty members provide the instruction for critically evaluating journal articles and books. Further, 75% ($n = 15$) of participants provide instruction for synthesizing information into papers and presentations, and 75% ($n = 15$) of participants indicated they provide the instruction for avoiding plagiarism (see Figure 11).

Next, 15% ($n = 3$) of faculty participants indicated they collaborate with a librarian for defining a topic, 40% ($n = 8$) of participants work with library staff to provide instruction to effectively and efficiently find sources, and 25% ($n = 5$) of faculty participants noted they work with the library to teach students how to critically evaluate sources. Thus, 30% ($n = 6$) of faculty members work with the library to teach the synthesis of information skill, and 30% ($n = 6$) of faculty members collaborate with the library to teach students about avoiding plagiarism (see Figure 11).

Additionally, faculty indicated they rely on other faculty to teach these skills. Data from the survey indicate 30% ($n = 6$) of faculty members rely on other faculty to teach students how to define a topic, 40% ($n = 8$) rely on other faculty to teach the skill of finding sources, and 25% ($n = 5$) rely on other faculty to teach students how to critically evaluate those sources. Thus, 30% ($n = 6$) of faculty participants noted other faculty teach students about synthesizing information, and 30% ($n = 6$) of survey participants noted other faculty teach students about avoiding plagiarism (see Figure 11).

Moreover, there were some faculty who expect students to know certain skills before enrolling into their respective courses. This includes 40% ($n = 8$) of faculty

members who expect students to have previous knowledge of defining a topic, and 20% ($n = 4$) of faculty members who expect students to know how to find sources effectively and efficiently. In addition, 30% ($n = 6$) of faculty members expect students to know how to critically evaluate sources, 25% ($n = 5$) expect students to know how to synthesize information, and 40% ($n = 8$) expect students to know how to avoid plagiarism before enrolling in their courses (see Figure 11).

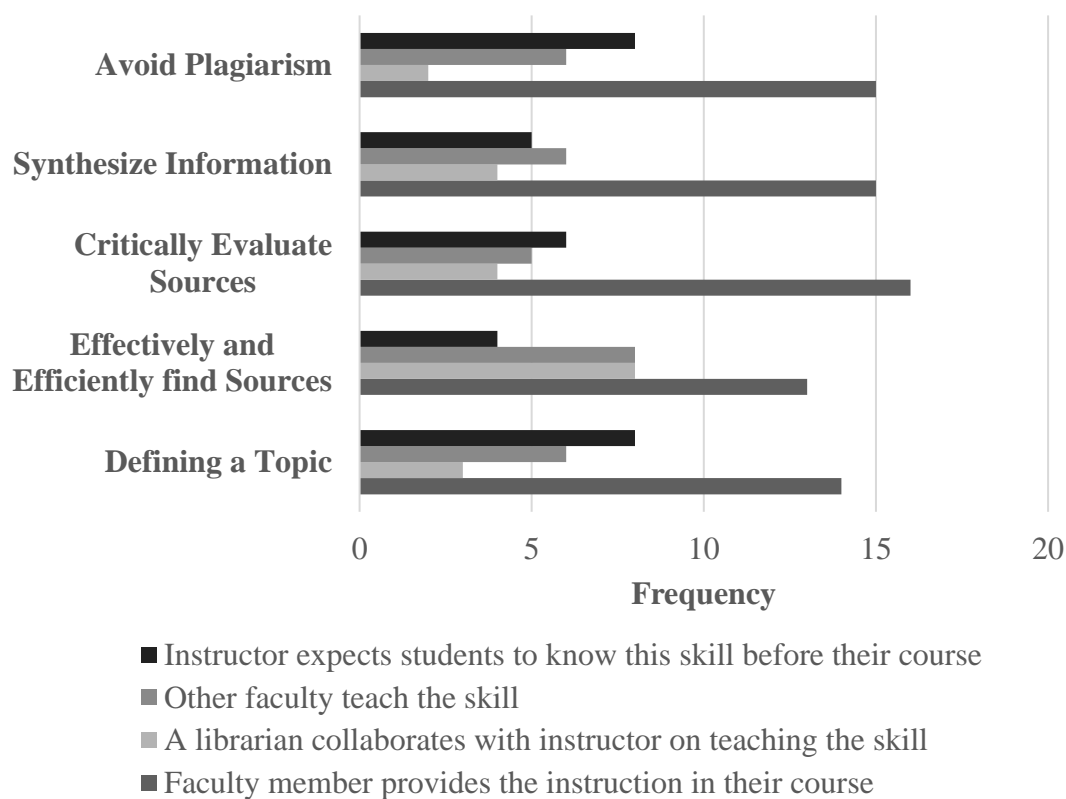


Figure 11. Faculty responses by information literacy instructional skills.

Research question two. What is the extent to which faculty collaborate with library staff?

Select responses from the 2018 annually administered library survey collected from faculty were used to answer research question two of this study. Moreover, through personal communications with the Chief Academic Officer (J. O. Hoggard, personal communication, July 3, 2018) and the Library Public Services Coordinator (S. Ward, personal communication, May 22, 2019) for the institution, additional data regarding the library providing information literacy sessions during the 2017-2018 academic year were collected and discussed to answer research question two.

During the spring 2018 semester, an electronic survey regarding faculty satisfaction with the library was sent to all 66 full-time faculty members at the institution. In total, 49 full-time faculty responded with a 74% response rate. For the purpose of this study, the sample was stratified to include only those who were full-time general education faculty. Of those eligible, 31 faculty member responses were reviewed for this study using descriptive statistics. Fifty-five percent ($n = 17$) of faculty indicated they were members of the Languages, Education, and Fine Arts departments, and 45% ($n = 14$) of faculty noted they were members of the Math, Science, and Social Sciences departments. This survey was conducted by the Office of Institutional Effectiveness on behalf of the library staff. This information was analyzed by the Office of Institutional Effectiveness and disseminated back to the library staff for the purposes of planning and continuous improvement.

The results indicated 0% ($n = 0$) of faculty access library resources in person daily, 28% ($n = 8$) of faculty use library resources weekly, 45% ($n = 13$) of faculty access library resources monthly, and 28% ($n = 8$) of participants indicated never accessing library resources in person (see Table 4). Moreover, 7% ($n = 2$) of faculty who

participated indicated they access library resources online daily, while 25% ($n = 7$) of faculty access library resources online weekly, 36% ($n = 10$) access library resources online monthly, and 32% ($n = 9$) indicated never accessing library resources online (see Table 4).

Table 4

Frequency of Accessing Library Resources by ABC College Faculty

		Daily (More than 3 times per week)	Weekly (More than 3 times per month)	Monthly (About 3 times per semester)	Never (Less than 3 times per semester)	Total No. of Faculty Responses
Access in Person	%	0%	28%	45%	28%	29
	Raw	0	8	13	8	
Access Online (Web)	%	7%	25%	36%	32%	28
	Raw	2	7	10	9	

Faculty who participated in the library survey were asked if they give students assignments requiring reading or research outside of class textbooks. Thirteen percent ($n = 4$) of faculty require additional reading, 35% ($n = 11$) require additional research, 29% ($n = 9$) of faculty require neither, and 23% ($n = 7$) of faculty require both additional reading and research outside of class textbooks (see Figure 12).

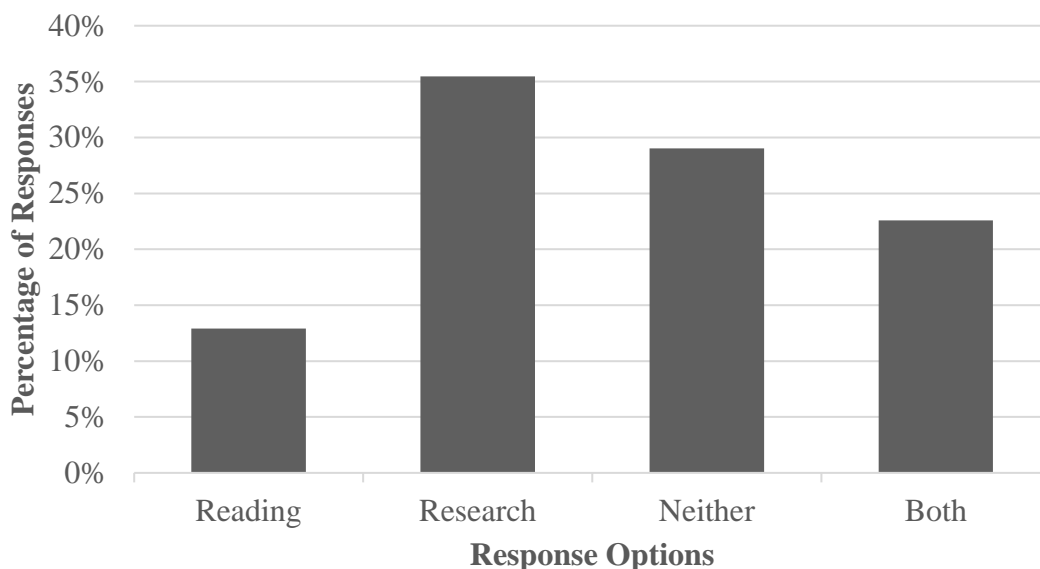


Figure 12. Type of assignments requiring reading or research outside of textbook.

Faculty participants of the library survey were asked how important library resources and services are to their work as instructors. A total of 30 participants responded to this question. Results indicated 50% ($n = 15$) of participants noted library staff and course support were very important, and 27% ($n = 8$) of faculty indicated these supports were important. Further, 13% ($n = 4$) of faculty indicated library staff and course support were not important, while 10% ($n = 3$) of faculty noted they do not use staff and course support (see Table 3). Library instruction was also offered as a resource and service. Results indicated 17% ($n = 5$) of faculty found this to be very important, and 47% ($n = 14$) noted this service was important. Additionally, 17% ($n = 5$) did not find this service to be important, and 20% ($n = 6$) of faculty did not utilize this service provided by library staff at the institution (see Table 5).

Table 5

Importance of Library Resources and Services to Instructors

		Very Important	Important	Not Important	Do Not Use	Total No. of Faculty Responses
Staff and Course Support	%	50%	27%	13%	10%	30
	Raw	15	8	4	3	
Library Instruction	%	17%	47%	17%	20%	30
	Raw	5	14	5	6	

Research question three. What institutional challenges do faculty express regarding information literacy?

Administration of the Information Literacy Needs Assessment Survey was intended to elicit data to answer research question three. In addition, a report from faculty regarding information literacy was used to supplement data to answer research question three.

Survey question eight. Do you have any additional comments about information literacy instruction in your courses?

Five faculty members provided additional comments about how they facilitate information literacy instruction in their courses. This information can be used to provide some additional context for their answers on the other questions of the survey. One instructor noted he tries to “de-emphasize the importance of the physical formatting of the paper (margins, headers, page numbers) in any style (MLA, APA, etc.) as an archaic relic from the age of typewriters and card catalogs” and focuses more on student responses and thought processes rather than format and style (SLIC, 2019). Another

faculty member provided practice exercises and assignments prior to bigger projects within his or her course(s). In addition to providing information literacy exercises (including plagiarism), another faculty member de-emphasized formatting of research in order to allow for the concentrated focus of critical thinking and evaluation by students. In the final faculty response, explaining the purpose of an assignment and introducing the concept of information literacy was noted to allow students to be more engaged with the information and to scaffold their own learning (SLIC, 2019). Another instructor indicated he or she does not teach information literacy skills and thus the question did not apply to his or her course(s) (SLIC, 2019).

Summary

In this chapter, the quantitative data collected from several data points were presented and analyzed to address the research questions of this study. The sources included the Information Literacy Needs Assessment Survey, which was adapted from a previous study conducted by Dr. Sharon Weiner of Purdue University in 2014. This survey adaptation was used to address the research question regarding faculty perceptions of incorporating information literacy within courses, along with their perceived role in teaching this specific concept and associated skills. Archived data of the 2018 library survey, administered to faculty, were provided by the Office of Institutional Effectiveness of the institution studied. Questions guiding this research were based on previous data released by the institution about effectively teaching information literacy. Provided in the next chapter is a synthesis of the findings along with study analysis and conclusions, implications for practice, recommendations for future research, and an overall study summary.

Chapter Five: Summary and Conclusions

This study was conducted to determine faculty perceptions of information literacy, their role in its teaching, and the extent to which faculty utilize library services and resources. Student learning outcomes are areas of competency emphasized in the learning environment beyond the typical course outcomes (Hernon et al., 2013). Information literacy is a college-wide learning outcome for the institution studied. Historical survey data and college-wide learning outcomes assessment data in information literacy existed for the institution but had not been studied in triangulation with the faculty perspective of the importance of information literacy (J. O. Hoggard, personal communication, July 3, 2018). Additionally, college-wide outcomes assessment data of information literacy were provided by the Office of Institutional Effectiveness to allow for the examination of current results in student learning of information literacy. These data, along with a survey administered to the general education faculty at the institution, were used to form a more holistic picture of teaching and learning of information literacy at this specific institution, and perhaps, to reveal a path for improvement moving forward.

Within this chapter, a synthesis of the results provided in Chapter Four is included, along with analysis and conclusions of the data in relation to supporting literature. Based on the information revealed, implications for practice and suggestions for further research are provided. This study will aid the institution in increasing student learning in information literacy by providing quality data and literature regarding best practices for consideration of implementation.

Findings

From the data presented in Chapter Four, it is evidenced that while 85% ($n = 17$) of faculty teach students information literacy skills within their courses, 15% ($n = 3$) of faculty do not. The extent to which the 85% of faculty taught these skills or indicated who is responsible for the teaching and learning of information literacy skills was varied based on subsequent results from the information literacy needs assessment survey. First, 76% ($n = 16$) of faculty respondents require students to prepare papers or presentations in their course(s), while 24% ($n = 5$) of faculty do not. When asked how the students in their course(s) learn to define a topic for a course project, 37% ($n = 14$) of faculty indicated they provide the instruction, 21% ($n = 8$) of faculty expected the student to know this skill before taking their course(s), and 18% ($n = 7$) of faculty assign project topics to the students. Also, 8% ($n = 3$) of faculty chose to collaborate with a librarian to teach this skill, and 16% ($n = 6$) of faculty expected other faculty to teach this skill.

Next, faculty were asked how students in their courses access journals and books for their course(s). For this question on the information literacy needs assessment survey, respondents were allowed to select more than one answer option. Twenty-one faculty responded to this question, and 33 answer selections were chosen. Of the 33 responses, 39% ($n = 13$) of faculty indicated they provide this instruction, while 24% ($n = 8$) of faculty collaborated with a librarian. Another 24% ($n = 8$) of faculty indicated other faculty teach this skill, and 12% ($n = 4$) indicated they expected students to possess this skill prior to enrolling in their course(s).

On the topic of students critically evaluating journal articles or book sources, faculty were allowed to select all applicable options. The participants provided 31

responses in which 52% ($n = 16$) of faculty indicated they provide the instruction for evaluating these sources, while 19% ($n = 6$) of faculty expected students to know this skill before enrolling in their course(s). Also, 16% ($n = 5$) of faculty selected other faculty teach this skill, and 13% ($n = 4$) of faculty collaborated with a librarian to teach this skill.

Faculty were also asked how students in their course(s) learn to synthesize information into papers and presentations by selecting all answers that applied to their course(s) and instruction. Thirty-two responses were collected from respondents in which 47% ($n = 15$) of faculty indicated they provide this instruction, while 19% ($n = 6$) of faculty indicated other faculty teach this skill and 16% ($n = 5$) expected students to know this skill before enrolling in their course(s). Another 12% ($n = 4$) of faculty collaborated with a librarian for this skill, and 6% ($n = 2$) of faculty expected students to learn this skill on their own.

The last question used from the information literacy needs assessment survey to address this research question asked faculty how students in their course(s) learn about avoiding plagiarism. For this question, faculty were allowed to select all applicable answers. There were 35 responses collected indicating 43% ($n = 15$) of faculty provided instruction regarding plagiarism, 23% ($n = 8$) of faculty expected students to know this skill before enrolling in their course(s), and 17% ($n = 6$) of faculty indicated this skill is taught by other faculty members. Moreover, 11% ($n = 4$) of faculty expected students to learn about avoiding plagiarism on their own, and 6% ($n = 2$) of faculty worked with a librarian to teach this skill.

To synthesize this information further, data based on information literacy instructional skills were graphically displayed. The display was derived from faculty responses to survey questions 3-7 of the Information Literacy Needs Assessment Survey. Due to the participants being allowed to select all responses that applied, these data were displayed as frequency of responses per topic.

Of the 20 faculty who responded to this survey, 70% ($n = 14$) of participants indicated they provide the instruction for defining a topic, 65% ($n = 13$) responded they teach students how to effectively and efficiently find journal articles, and 80% ($n = 16$) provide the instruction for critically evaluating journal articles and books. Further, 75% ($n = 15$) of participants provide instruction for synthesizing information into papers and presentations, and 75% ($n = 15$) of participants indicated they provide the instruction for avoiding plagiarism.

Next, 15% ($n = 3$) of faculty participants indicated they collaborate with a librarian for defining a topic, 40% ($n = 8$) worked with library staff to provide instruction to effectively and efficiently find sources, and 25% ($n = 5$) noted they work with the library to teach students how to critically evaluate sources. Thus, 30% ($n = 6$) of faculty respondents worked with the library to teach the synthesis of information skill, and 30% ($n = 6$) of faculty respondents collaborated with the library to teach students about avoiding plagiarism.

Additionally, faculty indicated they rely on other faculty to teach information literacy skills. Data from the survey indicated 30% ($n = 6$) of faculty respondents rely on other faculty to teach students how to define a topic, 40% ($n = 8$) indicated they rely on other faculty to teach the skill of finding sources, and 25% ($n = 5$) rely on other faculty to

teach students how to critically evaluate sources. Another 30% ($n = 6$) of faculty participants noted other faculty teach students about synthesizing information, and 30% ($n = 6$) of survey participants noted other faculty teach students about avoiding plagiarism (see Figure 11).

Moreover, some faculty participants expected students to know about information literacy skills before enrolling in courses. Forty percent ($n = 8$) of faculty respondents expected students to have previous knowledge of defining a topic, while 20% ($n = 4$) of faculty respondents expected students to know how to find sources effectively and efficiently. In addition, 30% ($n = 6$) of faculty participants expected students to know how to critically evaluate sources before their course(s), 25% ($n = 5$) of faculty participants expected students to know how to synthesize information prior to their course(s), and 40% ($n = 8$) of faculty participants expected students to know how to avoid plagiarism before enrolling in their course(s) (see Figure 11).

Forty-nine full-time faculty members responded to the 2018 administration of the library survey at the institution studied. The sample was further stratified to include only those 31 faculty members affiliated with the general education curriculum. These faculty members were asked how often they access library resources in person; 45% ($n = 13$) of this faculty sample access the library monthly, while 28% ($n = 8$) of the faculty sample reported weekly. Another 28% ($n = 8$) of the faculty sample never use the library resources in person, and none reported daily use (see Table 3).

Further, these same faculty members were asked how often they access online library resources. Overall, 36% ($n = 10$) selected monthly access to online library resources, 25% ($n = 7$) selected accessing resources weekly, and 7% ($n = 2$) reported

daily use. In addition, 32% ($n = 9$) of faculty members reported no use of online library resources (see Table 4).

Faculty were also asked if they assigned additional reading or research outside of course textbooks. From the responses of the 31 faculty members, 35% ($n = 11$) of faculty indicated they require additional research, 13% ($n = 4$) require additional reading, and 23% ($n = 7$) require both additional reading and research. Moreover, 29% ($n = 9$) of faculty required neither additional reading nor research beyond the course textbook(s). Faculty were asked how important library resources and services are to their work as instructors. Out of 30 responses to this question, 50% ($n = 15$) of faculty noted staff and course support are very important, while 27% ($n = 8$) of faculty rated this resource and services as important. Another 13% ($n = 4$) of faculty did not find staff and course support important, and 10% ($n = 3$) of faculty respondents selected they do not use any staff or course support.

In the same question matrix, faculty were asked to rate their level of importance for library instruction, which is offered as a service by the staff of the institution's library. Of the 30 responses, 47% ($n = 14$) of faculty found this service to be important, and 17% ($n = 5$) of faculty found library instruction to be very important. Another 17% ($n = 5$) of faculty did not find this service to be important, and 20% ($n = 6$) of faculty do not use this service.

Conclusions

Based on the results of the Information Literacy Needs Assessment Survey, a majority of faculty surveyed do, in fact, incorporate some form of information literacy instruction in their courses with 85% ($n = 17$) of faculty responding *yes*. Therefore, it

can be concluded while a majority of general education faculty teach information literacy skills within their courses, not all faculty embed this teaching into their courses despite it being a college-wide learning outcome for the institution. Information in the Student Learning Improvement Committee (SLIC) Executive Summary Report on the institution's website (SLIC, 2019) revealed the institution chooses to assess college-wide outcomes, such as information literacy, within the general education curriculum. The outcomes and assessment process currently in use at the institution were created, voted upon, adopted, and implemented by the faculty-at-large (SLIC, 2019). Upon further data mining, the survey results showed a large number of the faculty members who participated in this study provide their own instruction in information literacy skills such as defining a topic, accessing information, and critical evaluation of sources. The teaching of information literacy cannot continue to be siloed within small pockets within an institution; rather educators, from both the library and the classroom, must work together and begin discussions about how to improve these skills in student learning (Barber, 2014).

A majority of faculty who participated in this study provide instruction for the synthesis of information into papers and presentations and on how to avoid plagiarism. Thus, it can be concluded a large portion of the faculty perceive information literacy instruction to be within their purview of teaching. This is consistent with suggestions in the literature that the responsibility of teaching information literacy should not be solely shouldered by library staff but should be supplemented or should wholly occur within the traditional curriculum (Breivik, 2005). The Information Needs Assessment Survey results also indicated multiple, varying degrees of information literacy skills are taught,

as some faculty teach students how to access information while others do not. Various faculty members cited expectations that someone else will or has taught this skill prior to their course. Additionally, collaboration among faculty regarding the teaching of information literacy is not codified or formally evidenced anywhere at the institution leading to the conclusion there is no formal collaborative effort among faculty to sequence instruction of information literacy.

The data provided by the institution also revealed while information literacy workshop sessions are in existence, the actual number of course sections that utilize this resource is low and varies by discipline and course. This information supports the conclusion that systematic utilization and the embedding of one-shot workshops does not exist at the institution. Students who did not participate in information literacy or library resource training indicated it would have been beneficial to them in their learning (Klomsri & Tedre, 2016).

The Chief Student Services Officer for the institution noted through a personal communication that of 60 academic complaints reported, a small number of academic misconduct cases at the institution involved plagiarism (A. Matthews, personal communication, May 23, 2019). Upon investigation by the Student Services department, it was revealed most plagiarism misconduct was handled within the course where an infraction occurred and was not reported to a centralized point of contact (A. Matthews, personal communication, May 23, 2019). Once plagiarism was reported to the institutional contact, Student Services personnel met with the faculty-at-large to centralize information of misconduct to the Office of the Dean of Student Services (A. Matthews, personal communication, May 23, 2019). To date, only one additional

incident of plagiarism was reported despite students anecdotally telling Student Services they were unaware of the meaning of plagiarism (A. Matthews, personal communication, May 23, 2019).

The effort by Student Services appeared disjointed from faculty teaching and curricular instruction. Moreover, this effort by Student Services staff is an inconsistent intervention, as not all students live in on-campus housing; students who do not live on-campus do not receive this information, because it is only provided during orientation of housing students. Anecdotally, the Chief Student Services Officer stated:

I feel the faculty are still taking care of [plagiarism] within their class and not reporting. I do think it is still a problem, but not a huge problem. Until we get a true picture of how many students [need correction] and [the number of] times for each student [who is] plagiarizing, I cannot tell if our improvements are actually working. (A. Matthews, personal communication, May 23, 2019)

This statement from Student Services alludes to a deeper issue within the institution's processes and procedures. If faculty are not reporting instances of plagiarism to a central point of contact, there is no way to determine if a student is repeatedly breaking an academic code of conduct at the institution. For example, a student could plagiarize in a course one time and receive a zero and could then attend another course in the same semester, repeat the offense, and the institution would never know it was a recurring issue. Without a way to capture these types of data, the institution cannot determine the rate or extent of plagiarism at the institution. Determinately, it is concluded while some instruction of information literacy is evidenced by the self-reported results of the Information Literacy Needs Survey, the extent and approach of that instruction is varied

and not taught in all courses within the general education curriculum. It can also be concluded since some faculty perceive information literacy instruction to occur elsewhere, assessment of this college-wide learning outcome may be problematic during course selection. There should be a review of curricular mapping that occurs regularly for these types of challenges. In order to best serve student-learning needs, there should be a form of assessment (Casazza & Silverman, 1996). Without knowing what courses include instruction on information literacy skills, faculty run the risk of making assumptions regarding the sequence of remedial/developmental courses into college-level courses, as 62.3% of students during the 2017-2018 academic year were taking at least one remedial/developmental course (Dougherty, 2018).

The data from the library survey provided by the Office of Institutional Effectiveness indicated the majority of faculty who access library resources in person do so on a monthly basis. Additional data provided from the library survey show faculty are more likely to access online resources, with 25% ($n = 7$) of faculty accessing library resources online weekly and 36% ($n = 10$) of faculty participants accessing online resources monthly. Faculty participants in the library survey were asked how important library resources and services are to their work as instructors. Thirty participants responded to this question. Fifty percent ($n = 15$) of participants noted library staff and course support were very important, and 27% ($n = 8$) of faculty indicated these were important to them. Further, 13% ($n = 4$) of faculty indicated library staff and course support were not important, while 10% ($n = 3$) of faculty noted they do not use staff and course support. Seventeen percent ($n = 5$) of faculty found these resources to be very important, along with 47% ($n = 14$) of faculty who noted these services as important.

According to the Library Public Services Coordinator at the institution studied, library staff offer information literacy sessions to faculty and students upon request (S. Ward, personal communication, May 22, 2019). A librarian's principal task is to teach incoming students about the resources available, to create a professional presence, and to develop career skills (Foote, 2016). During the 2017-2018 academic year, instructors teaching 31 class sections of 10 different courses took advantage of this library service. Of the 10 courses associated with participation in information literacy sessions by students, 40% ($n = 4$) of those courses were from the general education curriculum, while another 40% ($n = 4$) were programmatic courses. Additionally, 10% ($n = 1$) of participating courses were from the remedial developmental curriculum at the institution, and the last 10% ($n = 1$) was the ACAD 101: Academic Life Strategies course.

Of the 31 sections associated with participation in information literacy sessions by students, 45% ($n = 14$) of information literacy sessions were in the ACAD 101: Academic Life Strategies course (see Table 4). Badke (2015) inferred students taught scholarly research skills lack the comprehension and evaluative skills to be successful scholars. One such discipline or area of emphasis to consider is developmental courses, specifically in reading and writing (Badke, 2015).

Through a personal communication with the Chief Academic Officer of the institution studied, supplemental data received from library staff of the institution were provided. The Chief Academic Officer provided the number of sections offered by the institution during the 2017-2018 academic year of the courses that received an information literacy session from the library (J. O. Hoggard, personal communication, May 22, 2019). While 45% ($n = 14$) of information literacy sessions were held in ACAD

101: Academic Life Strategies classes, this was 22% ($n=14$) of the total number of sections offered by the institution during 2017-2018. Of the four general education courses identified as participating in information literacy sessions, PHYS 100: Introduction to Physics and PHYS 101: Physical Science had the most sections. The other two general education courses identified with the participation of information literacy sessions were ENGL 111: College Writing and SCOM 110: Public Speaking.

Results from the library survey indicated 17% ($n = 5$) of faculty found the service of library instruction for students to be very important, along with 47% ($n = 14$) of faculty who noted this service as important. The data from the Information Literacy Needs Assessment Survey revealed fewer faculty reported collaboration with a librarian as evidenced by 15% ($n = 3$) of participating faculty indicating they collaborate with a librarian for simple instruction such as defining a topic. At no point in the survey did faculty responses for collaborating with the library reach above 30% ($n = 6$).

Thus, following review of results from the library survey for faculty, the Information Literacy Needs Assessment Survey, and personal communication information, it can be concluded faculty and library staff are making efforts to improve information literacy on a surface level. However, faculty have yet to make a concentrated effort to collaborate as a collective unit, and thus, information literacy instruction remains passive and disjointed. Additionally, faculty perceptions reveal library services and resources are important, and while some faculty may be collaborating with the library during information literacy sessions, a larger number of faculty are not and collaboration is not consistent among sections of courses, course sequences, or disciplines. It is important to provide regular information literacy training throughout a

student's coursework, in addition to traditional training at the beginning of freshman-level courses, in order to make online databases more accessible outside of the library and to provide more "collaborative inquiry-based learning" opportunities (Klomsri & Tedre, 2016, p. 304). Nath (2015) postulated, "School library becomes a source and force for educational excellence only when it functions as an integral component of the total teaching-learning process" (p. 89).

Upon review of the Student Learning Improvement Committee (SLIC) Executive Summary Report for 2017-2018, it was apparent data could be used to further explain institutional challenges regarding information literacy. There are two sections within the report, *Instructor Feedback* and *SLIC Member Feedback and Analysis*, in which faculty of the institution illustrated challenges regarding the current teaching and learning of information literacy at the institution (SLIC, 2019). Due to the increase in digital information, e-books, and online journal articles, the ease by which sourcing information was taught in the past has become increasingly difficult (Buhler & Cataldo, 2016). Bedford (2014) noted faculty should conduct "research and development, advise students and organizations, convene communities to address challenges and to spread knowledge, and advocate for important issues" (p. 4). The faculty members who administered the college-wide outcomes assessment of information literacy during the 2017-2018 academic year provided instructor feedback (SLIC, 2019). These faculty members were asked to provide additional information regarding the assessment through three open-ended questions at the conclusion of the data submission for a given semester (SLIC, 2019). The report indicated there were three subsequent questions following the report of assessment data in which faculty were asked what they learned because of the assessment

administration. One faculty member responded, “The students are generally able to understand what they read. They are not, however, able to evaluate it” (SLIC, 2019, p. 23). Another shared, “Online students are doing just as well as face-to-face students on this assignment” (SLIC, 2019, p. 30). At the conclusion of the summer 2018 collection, a faculty representative on the committee remarked:

Courses should teach media literacy and source evaluation if they require any research component at all. Having students state what they want to do with the information before they start looking for it helps with focus. Any assignment that requires accessing information should have a scaffolding/planning period at the beginning. (SLIC, 2019, p. 36)

These same faculty were asked if based on data submitted, they would be making any changes to instruction (SLIC, 2019). Various faculty responses included providing additional exercises requiring students to use their evaluative and critical thinking skills, adjusting assignment components, and providing further explanation of written instructions to students (SLIC, 2019). The final question allowed the faculty members to provide supplemental information pertinent to the assessment. No responses were given to this question during the spring 2018 collection, but one response by a faculty member during the summer 2018 collection suggested the rubric used for the college-wide outcomes assessment of information literacy needed to be revised (SLIC, 2019).

Lastly, an open-ended question on the Information Literacy Needs Assessment Survey allowed faculty respondents to express how they best facilitate information literacy in their courses. Five responses were provided. While one responded he or she does not teach information literacy, another expressed the reasoning for answers to other

questions within the survey. This left three responses by the faculty in which one faculty member expressed he or she provides practice exercises and assignments prior to bigger projects. Another faculty member expressed an addition of information literacy exercises (including plagiarism) would be provided to students, and the third faculty member stated consideration of de-emphasizing the format of research exercises in order to allow for the concentrated focus of critical thinking and evaluation by students. The last faculty response noted explaining the purpose of an assignment to students and introducing the concept of information literacy allows students to be more engaged with the information and to scaffold their learning. It can be concluded the institutional challenges the faculty expressed regarding information literacy consist of a lack of consistency in the instruction of information literacy and application of the assessment rubric. While some faculty members emphasize formatting and writing skills, other faculty de-emphasize these aspects to focus more on critical thinking and analytical evaluation skills.

Implications for Practice

Improving instruction outside of the library allows “the opportunity to restructure completely and rethink the curriculum to focus on learning and active student participation in the learning process” (Stoffle et al., 2015, p. 319). Klomsri and Tedre (2016) noted several recommendations to consider when working to improve information literacy instruction, including the need to add technology training for students as an offering for those who may not be as familiar with emerging technologies. Pierce (2018) remarked integrating information literacy sessions into targeted introductory English composition courses, as a sequence of scaffolded instruction within the first and second semesters, provides a natural fit by which information literacy skills can impact the most

students in both transferrable and career-entry degree programs. Selecting courses from the general education curriculum to target information literacy instruction is extremely important at a community college (Pierce, 2018). Careful review of student learning outcomes within courses is also relevant to ensure information literacy skills are introduced, reinforced, and emphasized within the curriculum, not only for what students could expect to learn but also by *when*, alluding to a bigger challenge of identifying a timeline within a sequenced curriculum (Carter & Rodgers Good, 2018).

There is little collaboration between faculty and library staff regarding information literacy instruction, assessment, and improvement of student learning at the institution. While the library staff at the institution studied provide information literacy sessions, data from library staff and the Chief Academic Officer indicate these sessions are underutilized at the institution. Pierce (2018) stated, “Because participation in the library instruction program is at the discretion of each instructor, many students complete their degree or certificate without experiencing a library instruction session” (p. 68). Collaboration between faculty and librarians can improve success in creating a successful information literacy culture (Hizmetli, 2014). Leaders of an institution have a responsibility, as Hizmetli (2014) noted, “College leaders should seize upon these opportunities to bring together departments that do not have a history of working collaboratively so that they may work toward addressing a common issue” (p. 57). Barber (2014) stated, “Although, deconstructing these silo barriers may be completely unrealistic, we as scholars, teachers, and educational leaders can work to make the boundaries within our spheres of influence more permeable and allow for a greater degree of integration” (p. 15). At the University of Utah, a transition from an in-person

workshop given once to each section of a writing class to an online information literacy course resulted in many changes to instruction, improved communication among faculty and staff, and a blending of instructional delivery (LeMire, 2016).

Perhaps one of the most profound statements by Stoffle et al. (2015) was the call for librarians to leave the physical confines of the library and collaborate with students and faculty in the learning environment rather than considering the relationship as one-directional in which the seekers of information must first come to the library. While the manner in which society uses information continues to change and evolve (Filbert & Ryan, 2016), the call for librarians to step up and become familiar with current practices continues to be important (Adams, 2014). Some have postulated librarians should collaborate with other departments to create pedagogical projects that would benefit not only students, but faculty learning as well (Bilodeau & Carson, 2014). Collaboration may include a review of course syllabi, course descriptions, and curriculum mapping (Gabriel, 2008).

Librarians, in general, do not possess necessary assessment expertise, and barriers like this cause them to rely on faculty and stakeholder buy-in to be effective in teaching information literacy skills (Detmering et al., 2019). Assessment conducted in academic libraries tends to be more informal in nature (Julien, Gross, & Latham, 2018). Thus, the assessment of actual learning from instructional workshops is undetermined, which makes support from faculty and administration difficult when the current practices rely heavily on self-evaluation and faculty feedback (Julien et al., 2018). The institution could benefit from having library representation on the assessment committee, as library staff tend to be willing to accept more of an instructional role and are in a unique position

to offer their expertise (Detmering et al., 2019). Further, Gregory (2014) decreed for librarians to maintain value within the realm of academia, they must become well-versed in the assessment of student learning. Additionally, if faculty and staff engage in professional development of information literacy together, they would have commonality in understanding information literacy while having some kind of consensus on meaning and terminology (Carter & Rodgers Good, 2018). Shared terminology is essential, as common understanding is crucial for all faculty to reinforce learning across disciplines (Veach, 2018).

Toward this end, librarians are instrumental in providing knowledge to students and are expected to continually improve upon their skills (Bilodeau & Carson, 2014). In order to best determine where information literacy instruction should be inserted into the curriculum, course descriptions, course outlines, and the general education curriculum map are pertinent documents to evaluate (Pierce, 2018). Lastly, further exploration of instructional practices and techniques could be further investigated via focus groups and personal interviews with both faculty and library staff to provide additional context to the existing survey data (Julien et al., 2018).

Recommendations for Future Research

This study involved elicitation of faculty perceptions; however, library staff perceptions regarding information literacy instruction were not considered. While the Chief Academic Officer and the Library Public Services Coordinator acknowledged information literacy workshop sessions exist, the content of those workshops has yet to be explored or mapped to either the general education curriculum or college-wide outcome competencies for the institution. Thus, the information provided to students

may not be aligned with current curriculum design or practices, which could result in less faculty usage of the workshops.

The library staff provided feedback about the information literacy sessions currently in existence at the institution, revealing 45% ($n = 14$) of information literacy sessions were in the ACAD 101: Academic Life Strategies course. This college-level course is a co-requisite to remedial/developmental courses at the institution. Without incorporating the remedial/developmental curriculum into the sequencing and mapping of college-wide outcomes assessment of information literacy at the institution, there is not a way to establish baseline data for these at-risk students. This could present a sequencing issue later if students in ACAD 101 sections have already received information literacy one-shot workshop sessions and then are presented with the same information later on in college-ready level courses. Further research and evaluation of course and curriculum design are warranted for this issue.

A deeper investigation into what information literacy skills are being taught throughout the remedial developmental curriculum is important for this institution, as a large portion of students are taking at least one remedial developmental course. Badke (2015) inferred students taught scholarly research skills lack the comprehension and evaluative skills to be successful scholars. One such discipline or area of emphasis to consider is developmental courses, specifically those in reading and writing (Badke, 2015). Thus, determining how best to scaffold information literacy instruction to support the skills and concepts being taught in the college-ready general education curriculum could be prudent for the institution. The data from the library survey indicated more faculty access and utilize online resources than in-person resources.

A review of library data regarding the number of users for online databases and materials and for physical holdings could be disaggregated by students and faculty/staff. If faculty members are predominantly using specific resources and students are using different resources, a shift in instruction could occur or further inquiry into the gap may be warranted. Second, a review of faculty skill levels and comfortability with information literacy instruction may also be of worth to the institution. If faculty feel more comfortable teaching one skill but not others, this could open the door for library staff to establish themselves as experts and provide a niche in professional development and collaborative resource for instructional design.

It may be a worthwhile pursuit for this institution to expand similar inquiry into the programmatic curriculum. While it is understood students are impacted by the general education curriculum at some point in their course study at the institution, this does not mean information literacy instruction ceases once students enter programmatic discipline-specific courses where concepts and skills can be reinforced. Providing regular information literacy training throughout a student's coursework, in addition to the traditional beginning-of-freshman-level courses, could promote more "collaborative inquiry-based learning" opportunities (Klomsri & Tedre, 2016, p. 304).

Lastly, a focused study on the information literacy skills of students who participated in the PHYS 100: Survey of Physics and PHYS 101: Physical Science courses could be a worthy pursuit. All students who were enrolled in the courses during the 2017-2018 academic year received information literacy workshop sessions in addition to their coursework. A comparison of these students with those who did not receive this

instruction could provide some insight into the efficacy of the existing information literacy sessions currently being taught by the library staff.

Summary

The over-arching goal of this case study involving one community college in Missouri was to investigate the pursuit of postsecondary institutions to create information-literate citizens. Specifically, this study was designed to research the perceptions of faculty regarding the instruction of information literacy and the extent to which collaboration between traditional faculty and the library staff exists. Existing historical survey data and college-wide outcomes data currently in existence for this institution were also considered. Finally, the faculty expressed any perceived challenges regarding the instruction of information literacy. While this research was limited to one specific institution, the assumption exists that providing situational data for this institution will lead to continuous improvement that could serve as a model for other institutions in the future.

Student assessment scores for the institution show students are better prepared to access information than to apply the knowledge or evaluate the information and sources through a critical lens. Additionally, historical survey data for the institution provided by library staff indicated while some faculty do utilize the library for its information literacy sessions, many have yet to take advantage of this resource. Even fewer faculty members are affiliated with the general education curriculum at the institution where the college-wide outcomes are assessed.

The population for this study was full-time faculty who teach at community colleges in Missouri. The participating institution has approximately 36 full-time

members of the faculty who teach courses in Missouri's 42-hour General Education Core (J. O. Hoggard, personal communication, July 3, 2018). The 36 instructors served as the sample for this study. Fraenkel et al. (2015) noted purposive samples as "the use of judgment to select a sample, based on prior information, to provide the data needed to draw conclusions" (p. 101).

The methodology of this study included the triangulation of historical survey data, college-wide outcomes data and analysis, and the results of a 10-question survey adapted and administered to the full-time general education curriculum faculty at a specific institution. Participation in the survey was voluntary, and no identifiable information was collected. This investigation was structured utilizing a holistic approach requiring inductive analysis and design flexibility (Fraenkel et al., 2015).

The findings for this study were based on the results of the Information Literacy Needs Assessment Survey. The results evidenced that while 85% ($n = 17$) of faculty teach students information literacy skills within their courses, 15% ($n = 3$) of faculty do not. Additional results of the Information Literacy Needs Assessment Survey provided the various degrees and aspects to which faculty members choose to teach information literacy skills and concepts, which were quite varied throughout the courses.

Forty-nine full-time faculty members responded to the 2018 administration of the library survey at the institution studied. The survey data revealed the extent to which faculty members accessed library resources in-person and online. Moreover, in this same historical survey, members of faculty were asked how important library resources and services are to their work as instructors. In the same question matrix, faculty were asked

to rate their level of importance for library instruction, which is offered as a service by the staff of the institution's library.

Based on the results of the Information Literacy Needs Assessment Survey, some general education faculty teach information literacy skills within their courses, but not all faculty embed this teaching into their courses despite it being a college-wide outcome for the institution. The institution chooses to assess college-wide outcomes, including information literacy, within the general education curriculum. Upon further data mining, a large number of faculty members who participated in this study provide their own instruction in information literacy skills such as defining a topic, accessing information, and critically evaluating sources. A majority of faculty who participated also provide instruction on the synthesis of information into papers and presentations and on avoiding plagiarism. Thus, it can be concluded a large portion of the faculty perceive information literacy instruction to be within their purview of teaching.

The results of this study led the researcher to conclude information literacy skills are taught by members of the faculty within the general education curriculum. However, not every faculty member does so in a consistent manner or at the same level; some do not address information literacy at all, or they expect other faculty members to teach these skills without data to support their assumption. Without a systematic alignment of pedagogy and instruction, there is no mechanism in place to ensure students receive consistent instruction. The data collected and analyzed led the researcher to conclude a college-wide collaborative effort to sequence instruction of information literacy embedded into course discipline areas is not evidenced at the institution at this time.

While some instruction of information literacy is evidence by the self-reported results of the Information Literacy Needs Survey from the faculty, the extent and approach to that instruction is varied and not taught in all courses within the general education curriculum. When faculty perceive information literacy instruction occurs elsewhere, assessment of this college-wide outcome may be problematic during course selection.

According to the Library Public Services Coordinator at the institution studied, the library staff offer information literacy sessions to faculty and students upon request (S. Ward, personal communication, May 22, 2019). During the 2017-2018 academic year, 31 class sections of 10 different courses were identified with the utilization of this library service. Results from the library survey for faculty, the Information Literacy Needs Assessment Survey, and personal communication information revealed faculty and library staff are making efforts to improve information literacy on a surface level but have yet to make a concentrated effort to collaborate as a collective unit. Consequently, information literacy instruction appears to be unstructured and inconsistent. Additionally, survey results revealed the perception held by faculty to find library services and resources to be important. However, the utilization of library resources and services does not coincide with reported faculty perceptions.

Institutional challenges expressed by the faculty regarding information literacy reveal a lack of consistency in the instruction of information literacy and application of the assessment rubric. While some faculty members emphasize formatting and writing skills, other faculty de-emphasize these aspects to focus more on critical thinking and analytical evaluation skills. By examining the faculty's own individual responses more

closely, the institution can draw inferences regarding broader, systemic challenges at the institution and can identify where targeted interventions to improve student learning can be applied to elicit the best outcomes.

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Appendix A

Survey

This 10-question survey is designed to be answered in less than 10 minutes. The results are important in developing effective support to students to enhance information literacy skills. A report of the findings will be submitted for publication. This study has been approved by the [REDACTED] and the Lindenwood University Institutional Review Board.

Thank you for participating in this study, and please feel free to contact me if you have any questions.

Michelle Lane

* * *

The purpose of this survey is to determine how students learn about information literacy concepts through courses at this institution. Academia, industry, and government recognize the importance of information literacy. According to the Association of College and Research Libraries (2016), the information literate student can:

- Determine the nature and extent of information needed
- Access the needed information effectively and efficiently
- Evaluate information and its sources critically
- Use information effectively to accomplish a specific purpose
- Understand many of the economic, legal, and social issues surrounding the use of information
- Access and use information ethically and legally

You can access the standards at

<http://www.ala.org/ala/mgrps/divs/acrl/standards/informationliteracycompetency>

1. Do you teach information literacy in your undergraduate courses?

Yes

No

2. Do you require students to prepare papers or presentations for any of your undergraduate classes?

Yes

No

3. How do undergraduate students in your courses learn to define a topic for a course project? This means that you may give students broad parameters about a general subject area, but they must identify specific topics for their projects.

(Check all that apply.)

I provide the instruction (lectures, handouts, links to online sources).

(provide a text box: "Comment").

My teaching assistant teaches this skill.

A librarian collaborates with me on teaching this skill.

Other faculty or staff teach this skill.

I expect students to know this skill before they take my courses.

I assign a project topic.

4. How do undergraduate students in your courses learn to effectively and efficiently find journal articles or books for your courses, other than those you have assigned?

(Check all that apply.)

I provide the instruction (lectures, handouts, links to online sources).

(provide a text box: "Comment").

- A librarian collaborates with me on teaching this skill.
- Other faculty or staff teach this skill.
- I expect students to know this skill before taking my courses.

5. How do undergraduate students in your courses learn to critically evaluate journal articles or books for your courses, other than those you have assigned?

(Check all that apply.)

- I provide the instruction (lectures, handouts, links to online sources).
(provide a text box: "Comment").
- A librarian collaborates with me on teaching this skill.
- Other faculty or staff teach the skill.
- I expect students to know this skill before they take my courses.

6. How do undergraduate students in your courses learn to synthesize information into papers and presentations?

(Check all that apply.)

- I provide the instruction (lectures, handouts, links to online sources).
(provide a text box: "Comment").
- A librarian collaborates with me on teaching this skill.
- Other faculty or staff teach the skill.
- I expect students to know this skill before they take my courses.
- I expect students to learn on their own.

7. How do undergraduate students in your courses learn about avoiding plagiarism?

(Check all that apply.)

___ I provide the instruction (lectures, handouts, links to online sources).

(provide a text box: "Comment").

___ A librarian collaborates with me on teaching this skill.

___ Other faculty or staff teach this skill.

___ I expect students to know this skill before they take my courses.

___ I expect students to learn on their own.

8. Do you have any additional comments about information literacy instruction in your courses?

Demographics. These questions request information about your status and experience in teaching.

9. What is your department affiliation at [REDACTED]?

___ Languages and Fine Arts

___ Humanities and Social Sciences

___ Mathematics

___ Career and Technical Education

___ Nursing and Allied Health

10. How many years of experience do you have teaching at the postsecondary level?

11. How many years have you been a faculty member at [REDACTED]?

If you would like to discuss information literacy further, you may contact the coordinator of this project. Thank you for participating in this survey!

Michelle Lane

Lindenwood University Doctoral Student

Appendix B

Permission to Utilize Survey

From: LANE, MICHELLE A (Student) <MAL630@lindenwood.edu>
Sent: Saturday, March 10, 2018 10:49 AM
To: Weiner, Sharon A
Subject: Survey Permission Request

Dr. Weiner:

My name is Michelle Lane, and I am an EdD candidate at Lindenwood University in St. Charles, MO. My research topic is *Information Literacy, Librarianship, and the Role of the Faculty at a Rural Community College in Missouri*. Upon researching, I read a 2014 article you authored entitled "Who Teaches Information Literacy Competencies? Report of a Study of Faculty?" The survey you used is wonderful and well-tailored to the research I would like to conduct within my own study.

I would like to request your permission to use the same instrument when assessing the faculty for my dissertation. My contact information is listed below, and I would be happy to speak with you should you have any questions or concerns. Thank you for your time and consideration.

Michelle Lane
 EdD candidate
 mal630@lindenwood.edu

From: Weiner, Sharon A <[REDACTED]>
Sent: Sunday, March 11, 2018 1:52 PM
To: LANE, MICHELLE A (Student)
Subject: Re: Survey Permission Request

Hello Michelle!

I am happy to hear of your interest in my work! Yes, you can use the instrument. Please let me know when your dissertation is done so I can read about your results!

Dr. Sharon Weiner, EdD, MLS

Professor of Library Science Emerita and W. Wayne Booker Chair Emerita in
 Information Literacy

Series Editor, Purdue Information Literacy Handbooks

Purdue University Libraries

Appendix C

Institutional Review Board Approvals

Exempt

Mar 22, 2019 11:47 AM CDT

RE: IRB-19-187: Initial - Beyond Curriculum: Information Literacy, Librarianship, and the Role of the Faculty at a Rural Community College in Missouri

Dear Michelle Lane,

The study, Beyond Curriculum: Information Literacy, Librarianship, and the Role of the Faculty at a Rural Community College in Missouri, has been Exempt.

Category: Category 2. (i). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording).

The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects.

The submission was approved on March 22, 2019.

Here are the findings:

This study has been determined to be minimal risk because the research is not obtaining data considered sensitive information or performing interventions posing harm greater than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests.

Sincerely, Lindenwood University (Lindenwood) Institutional Review Board

Modification

Jun 14, 2019 2:22 PM CDT

RE: IRB-19-187: Modification - Beyond Curriculum: Information Literacy, Librarianship, and the Role of the Faculty at a Rural Community College in Missouri

Dear Michelle Lane,

The study, Beyond Curriculum: Information Literacy, Librarianship, and the Role of the Faculty at a Rural Community College in Missouri, has been Approved.

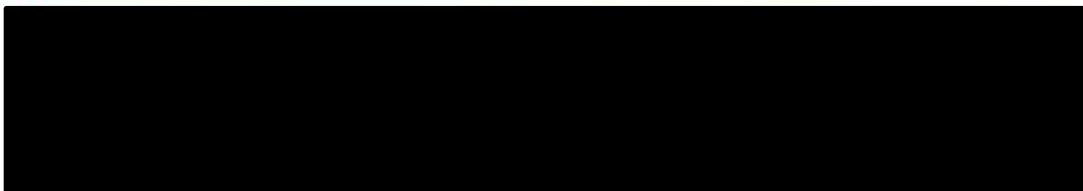
The submission was approved on June 14, 2019.

Here are the findings:

This modification entails a revision to the data collection process. This revision does not affect the previously approved risk determination.

Sincerely, Lindenwood University (Lindenwood) Institutional Review Board

Appendix D
Community College Permission Letter



March 28, 2018

Dr. [REDACTED]
[REDACTED]

To Whom It May Concern,

The purpose of this letter is to inform Lindenwood University that one of the [REDACTED] full-time employees, Ms. Michelle Lane is granted permission to conduct her study "*Beyond Curriculum: Information Literacy, Librarianship, and the Role of the Faculty at a Rural Community College in Southeast Missouri*" at the college. [REDACTED] RB does not anticipate any risk associated with our faculty's participation in this research study.

Ms. Lane is fully aware that the study shall be conducted in collaboration with the [REDACTED] [REDACTED] Office of Institutional Effectiveness. [REDACTED] faculty shall be given an option to participate in a survey that will be facilitated by our office. All faculty shall be made aware that participation in this project is voluntary and are free to withdraw at any time with no penalty for doing so. Faculty who choose to participate must complete a consent form at the beginning of the survey.

All information collected during this research study will be treated confidentially so the faculty name shall remain anonymous. The study shall conclude no later than May, 2019. All data collected shall be stored securely on [REDACTED] premises for three years after the conclusion of the study and will then be destroyed. The information from this study may be used to improve student success at the College.

Please do not hesitate to contact me directly if any further information is required for Ms. Lane to begin her study: [REDACTED]

Best Regards,



Dean of Institutional Effectiveness

cc: [REDACTED] Dean of Instruction
cc: [REDACTED] College President

Appendix E

Research Information Sheet

LINDENWOOD

Research Information Sheet

You are being asked to participate in a research study. We are conducting this study to research the connection between library services and resources, information literacy assessment as a college-wide outcome, and emphasis on information literacy by the faculty in curriculum design to improve the student learning outcome of information literacy at a rural community college in Missouri. During this study you will be asked to participate in a brief survey regarding your instruction of information literacy. It will take about 10 minutes to complete this study.

Your participation is voluntary. You may choose not to participate or to withdraw at any time.

There are no risks from participating in this project. There are no direct benefits for you participating in this study.

We are collecting data that could identify you, such as discipline and number of years teaching. Every effort will be made to keep your information secure and confidential. Only members of the research team will be able to see your data.

We will do everything we can to protect your privacy. We do not intend to include information that could identify you in any publication or presentation. Any information we collect will be stored by the researcher in a secure location. The only people who will be able to see your data are members of the research team, qualified staff of Lindenwood University, and representatives of state or federal agencies.

Who can I contact with questions?

If you have concerns or complaints about this project, please use the following contact information:

Michelle Lane at mal630@lindenwood.edu

Dr. Julie Williams at jwilliams3@lindenwood.edu

If you have questions about your rights as a participant or concerns about the project and wish to talk to someone outside the research team, you can contact Michael Leary (Director - Institutional Review Board) at 636-949-4730 or mleary@lindenwood.edu.

Appendix F

Letter of Introduction

November 29, 2018

As a doctoral candidate at Lindenwood University, I am extending an invitation to you to participate in a study.

I am conducting a research study titled *Beyond Curriculum: Information Literacy, Librarianship, and the Role of the Faculty at a Rural Community College in Missouri* to fulfill part of the requirements for a doctoral degree in Educational Administration at Lindenwood University. The purpose of this study is to explore the connection between library services and resources, information literacy assessment as a college-wide outcome, and emphasis on information literacy by faculty in curriculum design to improve the student learning outcome of information literacy at a rural community college in Missouri.

Participation in this study is voluntary. The survey will take approximately 10 minutes. The identity of the participants will remain confidential and anonymous in the dissertation and any future publication of this study.

If you are interested in participating, please see the attached informed consent.

Please do not hesitate to contact me with any questions or concerns about participating in the research. I can be reached at mal630@lindenwood.edu or [REDACTED]. You may also contact the dissertation advisor for this research study, Dr. Julie Williams, at jwilliams3@lindenwood.edu.

A copy of this letter should be retained for future reference. Thank you for your time.

Michelle A. Lane
Doctoral Candidate

Vita

Michelle A. Lane serves as the Assessment Coordinator for SLIC in southeast Missouri. Lane holds a Bachelor of Science degree in Psychology from Central Methodist University and a Master of Arts degree in Higher Education Administration from Southeast Missouri State University. Michelle is a proud member of the Missouri Community College Association (MCCA) since 2012 and a member of the Association of Institutional Researchers (AIR) since 2014.

Prior to her role in Institutional Effectiveness, Lane, a community college alumna, served as Assistant Coordinator of the Center at Dexter for three years and held various part-time roles across the institution at SLIC. Michelle has also served as an adjunct instructor for the institution since 2013. Lane resides in her hometown of Dexter, Missouri.