College Information Literacy Instructors' Perceptions About Teaching Information Literacy Courses

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Abstract

According to Metz (2017, p. 6), "Evidence-based reasoning is under assault." Information illiteracy has spread to a catastrophic level, partially due to advances in technology and the popularity of social media as a conduit for spreading misinformation (Rubin, 2019). Although the term information literacy (IL) was coined in 1974 by Paul Zerkowski, (Bronstein, 2018), higher education did not take IL seriously until the digital age, with the proliferation of fake news, conspiracy theories, and misinformation that began spreading in the 1990s (Carter, 2021). The current research study involved the use of a qualitative phenomenological research design to examine the perceptions of 10 IL instructors from private four-year institutions of higher education in Kansas about the purposes of IL courses, useful teaching methods for instructing IL classes, factors that facilitate instruction in IL classes, barriers or obstacles related to teaching an IL class, and positive or negative outcomes observed in students who had completed an IL class. Nine of the participants cited teaching the Association of College and Research Librarians framework as a central purpose of teaching IL. Teaching students to think critically, read laterally, and challenge assumptions were also described as purposes of teaching IL. The majority of participants indicated that hands-on interactive activities and those that used games and competitions were the most useful teaching methods in IL courses. Group work and technology (online databases, the Internet, and videos) were identified as facilitators of instruction. One-shot sessions, unsupportive classroom teachers or conflict with faculty who were disrespectful or condescending, technology (lack of current hardware and limited knowledge of instructors related to technology), and closemindedness of students were described as barriers to teaching IL courses. Half of the respondents indicated they

had not observed any negative outcomes in students who had completed an IL course. Six of 10 respondents indicated that a positive outcome observed in students who completed an IL course was gratitude for the knowledge gained. Due to the proliferation of fake news, conspiracy theories, propaganda, disinformation, and misinformation, librarians and academics from all disciplines are realizing the crucial importance of IL. Information literacy is now critical as educators work to stem the spread of misinformation and disinformation. Investing in IL instruction may equip college students with the necessary skills to verify information widely available through the Internet and other social media platforms.

Dedication

This is dedicated to my family, in particular, my wife, Iryna Stroganova, and my father, Max J. Skidmore. I don't think I would have stuck the program out without their help, support, and encouragement!

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Chapter 1

Introduction

People living in the United States were not always skeptical of the news. In the 1950s, the general public obtained information from a few trusted news sources, including a handful of periodicals, their town or city's daily newspaper, and the daily news broadcasts on the radio or major television networks including CBS, NBC, and ABC (Bomey, 2018; Erickson, n.d.). In 1972, Walter Cronkite, the host of the CBS Evening News, was voted the most trusted man in America in a national poll ("Walter Cronkite," n.d.). However, with 21st century advances in technology, and the proliferation of and the ubiquitous nature of the Internet and social media, it has become more difficult to separate accurate information from misinformation, fake news, and conspiracy theories (Aaronovitch, 2010). Rubin (2019) referred to the current situation as "a polluted news environment" (p. 1022).

The term *fake news* is often misused. Some politicians and pundits have used the term to describe factual reports that are critical of them or contrary to their positions and opinions. Sullivan (2020) declared that "The loudest cries of 'fake news' accompany the most damning journalism," adding that when former President Donald Trump used the term it meant "all too accurate reporting that damages my reputation" (p. 1). If information is factually-based, it is not fake news. It could even be labelled with a double-negative as *fake fake news*. Pierce College Library (n.d.) defined fake news as anything that is a complete fabrication without factual basis. This could be labelled with an oxymoron as *real fake news*. Pierce College Library also noted that reporting on

allegations is not fake news, as long as the information is not misrepresented as confirmed facts.

According to Rubin (2019), the credibility of information refers to the veracity or trustworthiness of the information received and the source from which it came. Rubin (2019) stated that researchers have verified the term credibility may date back over 2200 years when the ancient Greeks were utilizing peripatetic learning - strolling around engaging in dialectical, thought-provoking conversation. Socratic discussion involved philosophical conversations with open-ended questions, while searching for exceptions to assumptions, beliefs, or definitions (Stice, 2021). This is still a useful tool in academia, with professors facilitating student-led groups exploring different points-of-view while searching for exceptions to their beliefs. Socratic exercises are designed to develop an open mind and spur critical thinking (Stice, 2021).

Today, word-of-mouth is merely a small part of how news and information is disseminated. In the 20th Century, both print and electronic media began spreading information to a wider audience instantaneously, making credibility and truth essential (Aaronovitch, 2010). By the 21st Century, the Internet and social media allowed news and information to spread exponentially faster. Unfortunately, these platforms also began to spread fake news and disinformation at an accelerating rate (Aaronovitch, 2010). Today, the digital divide continues to shrink as more and more people gain Internet access making the credibility of the information that is released even more important (Aaronovitch, 2010).

People have turned to the news for facts and accurate information, and legitimate journalists have extensive training on how to check, verify, and re-verify information

from multiple sources to make sure it is accurate and complete before reporting it to the public (Society of Professional Journalists [SPJ], 2021). According to the SPJ (2021), reporters are required to be fair and balanced truth-seekers, minimizing harm, and acting independently, while being accountable and transparent. Rupar (2021) stated that most journalists still adhere to objective, ethical guidelines. However, some media outlets labelling themselves as *news channels* are spreading fake news stories without offering evidence to back them up, as well as conspiracy theories that stretch the imagination (Rupar, 2021). Dacombe (2021) stated conspiracy theories always thrive during emergencies and times of crisis--such as a pandemic.

According to Aaronovitch (2010), conspiracy theories have traditionally been statements of wild, outrageous explanations for some event, ignoring the obvious and most plausible cause, and substituting a nefarious group or character as the responsible party. Pipes (1997) provided a concise definition of the term conspiracy theory, “It is the nonexistent version of a conspiracy" (p. 5). Some conspiracy theories have unknown origins, similar to urban legends, while others might have been launched by a tell-all book (Aaronovitch, 2010).

Higher education students may encounter some of the more widespread conspiracy theories in political science, history, and science classes. Some of the best-known conspiracy theories include those described by Aaronovitch (2010), Blake (2021), Chait (2021), Cillizza (2021), Haag and Salam (2017), Lee (2021), Malloy (2018), Meeks, Campbell, & Cauldwell (2021), Rubin (2019), Rupar (2021), Shenton and Wilmore (n.d.), and Smith-Galer (2020). Many notable conspiracy theories from the 20th century involved glamourous characters such as Marilyn Monroe and John F. Kennedy.

A widespread example of a conspiracy theory still circulating in 2022 appears to have originated from forged documents indicating that Marilyn Monroe was actually murdered, instead of either accidentally or intentionally overdosing on drugs (Aaronovitch, 2010). Some conspiracy theorists have attempted to tie the assassination of John F. Kennedy to Marilyn Monroe's death (Aaronovitch, 2010). Other conspiracy theorists have blamed the Illuminati and the Rothschilds and other Jewish bankers for the Kennedy assassination (Smith-Galer, 2020). In 2016, Donald Trump alleged that Senator Ted Cruz's father had been involved in the Kennedy assassination (McCaskill, 2016). Apparently Trump had read this conspiracy theory in the *The National Enquirer* tabloid (McCaskill, 2016). As of January 2022, the *Flat Earth Society's* website was still promoting the conspiracy theory that the National Aeronautics and Space Administration's July 20, 1969 Apollo 11 moon landing was actually faked (Shenton & Wilmore, n.d.). According to Aaronovitch (2010) another persistent conspiracy narrative is that the 9/11 terrorist attack was an *inside job* orchestrated by former President George W. Bush (Aaronovitch, 2010). In 2017, Q-Anon spread the conspiracy theory that Senator Hillary Clinton was operating a child-prostitution ring out of the basement of a Washington pizza parlor through various media sources (Haag & Salam, 2017). This misinformation almost resulted in tragedy when a confused gunman burst into the pizza parlor demanding to know how to get to the basement (which did not exist) to rescue the children. When the gunman, Maddison Welch, was arrested, he apologized and said that "The intel on this wasn't 100%" (Haag & Salam, 2017, p. 1). Fortunately, no one was harmed. The results of a more recent Q-Anon theory actually did result in tragedy when a conspiracy theorist confessed to kidnapping his own children, taking them across the

Mexican border, and murdering them (Meeks, Campbell, & Cauldwell, 2021). When apprehended he told authorities that "it was the only course of action," because his wife possessed 'serpent DNA' and had passed it on to his children" (p. 1).

Recent conspiracy theories from 2021 circulating on the Internet and on news sites that promote fake news included the following examples. Massive forest-fires throughout the world are not the result of climate change. Instead they are the result of Jewish space lasers (Chait, 2021). The January 6 insurrection at the U.S. Capitol building was not orchestrated by Trump supporters and white-supremacist fringe groups like the Proud Boys, but was planned by the Federal Bureau of Investigation (Rupar, 2021). Another category of conspiracy theories proliferating and evolving addresses the Covid-19 vaccine. One such theory is that the Covid-19 vaccine will inject everybody with microchips, enabling the government to track individuals (Lee, 2021). The theory was so widespread that the Rhode Island Department of Health posted a message on its website: "Covid-19 vaccines will not change your personality, make you grow a third eye, or alter your DNA. They are microchip free" (Lee, 2021, p. 1).

On August 23rd, 2021, the United States Food & Drug Administration (FDA) granted full approval to the Pfizer vaccine, prompting the conspiracy theory that the FDA did not really approve the drug and it was merely fake news propagated by the media (Blake, 2021). After the FDA approval, Kentucky Senator Rand Paul issued a statement promoting the drug Ivermectin which is used for intestinal parasites and head lice. Paul claimed that the real reason the FDA was not studying Ivermectin and the malaria drug Hydroxychloroquine is because of the agency leader's hatred for Donald Trump (Cillizza, 2021). Since few doctors will prescribe Ivermectin to fight Covid, people have been

ending up in hospital emergency rooms after purchasing and ingesting Ivermectin from veterinary supply stores, prompting the FDA to issue the following statement: "You are not a horse. You are not a cow. Seriously, y'all. Stop it!" (Cillizza, 2021, p. 1).

According to Haag and Salam (2017), today's technology and social media enable fake news, misinformation, and conspiracy theories to spread faster than ever. These types of information have also become more dangerous and far-fetched (Haag & Salam, 2017). With credibility research more crucial now than ever, information literacy (IL) classes have become required courses on college campuses and are aimed at teaching students how to differentiate fact from fantasy (Malloy, 2018; Rubin, 2019). According to Rubin (2019), colleges have the responsibility to teach students how to discern verifiable information from fake news and conspiracy theories since young students are among the most vulnerable to misinformation, disinformation, and deception. Information literacy skills are transferable, and they will translate into a variety of experiences throughout the rest of the students' lives (Malloy, 2018).

Today, conspiracy theories are reaching a whole new level of disinformation, and this problem desperately needs to be addressed (Stice, 2021). Q-Patriots are conspiracy theorists spinning increasingly far-fetched narratives without any solid evidence, and they are gravitating toward college campuses with their own agenda to push (Stice, 2021). What doubles the impact of these theories is that some of these claims are being echoed by politicians and other public figures (Chait, 2021; Greenberg, 2019). Academics and librarians are some of the front-line workers on college campuses who are becoming increasingly aware of the problem and trying to correct it in an expeditious manner (Stice, 2021).

Background

It is imperative that students develop critical thinking, critical reading, and critical listening skills throughout not only their academic studies, but throughout their entire lives. Critical thinking is thorough and analytical thinking and involves more than a degree of skepticism (Ellis, 2017). Blackwell (2017) said reading and studying laterally is one of the best methods to teach students how to think critically and sort fake news from factual information. Reading laterally is simply reading a variety of sources to verify that they are comparable, if the information is complete, and if it is used in the right context (Blackwell, 2017).

Thousands of years ago, the ancient Greeks' concepts of credos (credibility), ethos (ethics), and logos (logic) were considered essential to convince the listening public (Rubin, 2019). According to Stice (2021), many 21st century researchers still consider these concepts crucial. In addition, Socratic discussion is a primary method used to help protect students against misinformation, fake news, and conspiracy theories (Stice, 2021). Conspiracy theory researcher Aaronovitch (2010) suggested the solution to combat acceptance of misinformation, fake news, and conspiracy theories is to teach the receivers of this disinformation to start with a large dose of skepticism, a good knowledge of history, and development of their own common sense.

According to Haggar (2020), IL is not a new concept. However, Haggar suggested multiple factors have increased the problem of misinformation, disinformation, and conspiracy theories exponentially in recent years. Fake news spreads faster than ever due to social media and advances in technology (Haggar, 2020). Scientific issues such as climate change and the pandemic have become more and more politicized (Pinsker,

2021). Ojeda and Hatemi (2015) and Pinsker (2021) examined Americans' support for higher education and reported that Republicans more than any other demographic group, believe that college campuses and higher education in general are moving the country in the wrong direction. Pinsker (2021) also reported that an increasing number of individuals also disbelieve solid scientific information. Some researchers have concluded that science-denial and lack of confidence in institutions of higher education are primarily the result of cultural polarization instead of lack of information (Bowyer & Kahne, 2017; Kahan, n.d.). Bishop (2009) discussed how the power of groups can shape opinions and quash any dissent, leading to a polarized *either you're for us or you're against us* mentality. He referred to this as "finding safety within your own tribe," and comfort from "like-minded people" (p. 159). Bishop labeled this phenomenon as "the homogenous unit principal" (p. 159).

In an effort to teach college students how to discern factual information from conspiracy theory, higher educational institutions began teaching courses in IL as early as the 1970s (Webber & Johnston, 2000). Examples of courses have included *Mastering Lifelong Learning* at Cleveland University-Kansas City, *Calling Bullshit* at the University of Washington, *Fake News, Lies, and Propaganda* at the University of Michigan-Ann Arbor (Rubin, 2019), and *Political Conspiracy Theories* at Tulane University in New Orleans (Ward, 2018). *Misinformation and Viral Deception* is offered as a graduate level class at Western University in London, Canada (Rubin, 2022). According to Haggar, 2020), while most IL classes are aimed at incoming freshmen, some scholars recommend that universities offer students subsequent semesters of IL classes teaching how to dispel

fake news. Mastering IL is believed to be an ongoing, lifelong learning process (Haggar, 2020).

According to Stice (2021), academics might disagree on which discipline is best-equipped to deal with fake news, conspiracy theories, and information illiteracy. However, all IL classes must focus on veritas (the Greek word for truth), promote critical thinking, and teach students how to differentiate between documented information from false information not supported by facts (Stice, 2021). Holt (2017) indicated scientists and those trained in scientific protocol and the scientific method, were the best equipped to tackle the problem of IL. Rubin (2019) suggested an interdisciplinary approach including educators, journalists, scientists, liberal arts professors, and librarians is preferable because individuals from these disciplines teach and reinforce IL from various perspectives. Stice (2021) advocated that IL classes are "best shouldered by the traditional liberal arts disciplines," (p. 1). While much of academia is specialized and even siloed, librarians have a wealth of information from a wide variety of disciplines at their fingertips. In recent years they have become more involved in teaching IL courses (Beene & Greer, 2020). Misinformation, conspiracy theories, and fake news have existed for decades (Haggar, 2020). According to Beene and Greer (2020), additional research is needed on the connection between conspiratorial thinking and information illiteracy.

Statement of the Problem

According to Metz (2017, p. 6), "Evidence-based reasoning is under assault." Information illiteracy has spread to a catastrophic level, partially due to advances in technology and the popularity of social media as a conduit for spreading misinformation (Rubin, 2019). According to Yevelson-Sharsher and Bronstein (2018), the term IL was

coined by Paul Zurkowski in 1974. Although evident in the literature since the 1970s, the concept of IL gained traction in the 1990s with the advent of mass usage of the Internet (Carter, 2021). Due to social media and the spread of disinformation, IL lectures have gained importance, and entire classes have been added to university catalogs in recent years. Since we have entered the digital age, higher education institutions have taken an active role in teaching IL, both as an introductory course and through embedding IL throughout undergraduate and graduate courses (Carter, 2021).

Kruger and Dunning (1999), two Cornell University psychologists, discovered that people with the lowest levels of IL were not only the poorest at problem-solving and the ones most likely to come to erroneous conclusions, but they also dramatically overestimated their own abilities, and were often convinced that their own conclusions were correct. Labeled the Dunning-Kruger Effect, this finding demonstrated an association - although it did not establish causality - among those with the highest levels of information illiteracy being the most likely to believe disinformation and misinformation, and also being the most likely to be sure they were correct, and even confident they were experts in subjects they knew little about (Kruger & Dunning, 1999).

Khan and Idris (2019) stated that IL is more crucial than it has ever been because of the damaging effects of misinformation. Instead of professional journalists, editors, and producers being the gatekeepers who decide what information is disseminated, ordinary people are now the creators and gatekeepers of the deluge of information being shared every minute. It is imperative that users of social media gain vital competencies in IL to prevent the spread of disinformation and misinformation (Khan & Idris, 2019).

According to Khan and Idris (2019), 60% of students share articles on social media without fact-checking them or even reading them in their entirety.

Hume (2016) stated that real knowledge comes from abstract reasoning. Khan and Idris' (2019) research built upon principles first identified by Fallis in 2004. Fallis indicated basic IL skills include the ability to assess whether the initial source of the information is authoritative and reliable, the ability to independently corroborate the information from varied and disparate sources, and the ability to assess the plausibility of the information. According to Khan and Idris (2019), another key factor in IL is developing digital literacy, or higher-level Internet skills. Khan and Idris (2019) found that people who were less adept at doing Internet research were more likely to share misinformation. In order to fight information illiteracy, individuals must develop the ability to locate, retrieve, assess, and evaluate information to explain a problem or issue, and then effectively communicate the information or share it on social media (Khan & Idris, 2019).

While researchers have defined components of information illiteracy and IL there is limited research on teaching IL. Reviewing the literature for the current study, no research was found related to the perceptions of college instructors who teach IL college courses about the purposes, methodologies, and course student learning objectives. Additional research is also needed that examines what higher education instructors consider to be the biggest challenges and obstacles related to teaching IL courses, as well as what they perceive are the most successful teaching strategies in IL courses. Research that documents instructor observations of positive and negative outcomes in students who have completed an IL course is also missing from the literature.

Purpose of the Study

Four purposes guided this study that was focused on information literacy instructors' perceptions of IL courses. The first purpose was to determine what IL course instructors perceive to be the purposes of IL courses. The second purpose was to investigate the IL course instructors' perceptions about the instructional methods they think are useful in teaching IL classes. The third purpose was to explore IL course instructors' perceptions about the facilitators and barriers to teaching IL classes. The fourth purpose was to examine what IL course instructors perceived are positive and negative outcomes they have observed in students who completed these classes.

Significance of the Study

This study may be of interest to higher education administrators, faculty, and staff. These individuals should be well-informed about how their college or university is teaching students to think critically. Students might also be interested in the results of the current study. As participants in the higher education learning environment, they should be aware of information illiteracy and the proactive efforts institutions are making to promote IL. Members of the business community and members of the Chamber of Commerce in geographic locations where study participants teach may also have an interest in results of the current study. Students are often actively involved in community organizations and activities. Students who can discern accurate information from misinformation may contribute to community dialogue and discussion about current issues. Higher education institution board members, state legislators, and the governor of Kansas, the state in which the study was conducted, may also have an interest in the results of the current study. These individuals may benefit from knowing how future

citizens are developing the ability to think critically. This study contributed to the research related to perceptions of IL instruction on college campuses. The results of the current study may encourage community colleges and universities to mandate an IL course in the college curriculum.

Delimitations

"Delimitations are self-imposed boundaries set by the researcher on the purpose and scope of the study" (Lunenburg and Irby, 2008, p. 134). Two delimitations were identified for the current study.

1. Interview participants in the current study were individuals who had taught an IL class in a higher education institution between the fall of 2019 and spring of 2022.
2. All participants were employed at private four-year colleges and universities in Kansas.

Assumptions

According to Lunenburg and Irby (2008), assumptions are postulates and premises that researchers widely accept as logical and true. They are part of the researchers' paradigm and framework. The current study was based on two assumptions:

1. Participants understood the interview questions.

2. Participants answered the interview questions honestly and thoroughly.

Research Questions

The current research study was guided by four research questions:

RQ1. What are the perceptions of IL course instructors about the purposes of the courses?

RQ2. What are the perceptions of IL course instructors about methods that are useful in teaching IL classes?

RQ3. What are the perceptions of IL course instructors about the facilitators and barriers to teaching IL classes?

RQ4. What are the perceptions of IL course instructors about positive and negative outcomes they have observed in students associated with their completion of an IL class?

Definition of Terms

The following section provides a definition of terms to assist the reader of this dissertation.

Alternative facts. Jaffe (2017) stated that the term alternative facts has become a euphemism for lies. The term was first coined by U.S. Counselor to President Trump, Kellyanne Conway, on January 22, 2017 (Jaffe, 2017).

Confirmation bias. Blackwell (2017) indicated that confirmation bias refers to accepting or rejecting new information regardless of the veracity, solely on the basis of whether the information is consistent with what a person already believes to be true.

Conspiracy theories. According to Tanner (2008), conspiracy theories are views rooted in suspicion, attributing the cause of negative events to powerful, hidden forces and shadowy organizations, defying most evidence pointing to a much simpler, more logical cause. Conspiracy theorists often point to the lack of evidence supporting their version of events to prove the real evidence was fabricated as a cover-up. Conspiracy theories are often extremely complicated when the real explanation is simple (Aaronovitch, 2010; Tanner, 2008).

Disinformation. Blackwell (2017) stated that disinformation occurs when the entire story is completely fabricated, either as a hoax, or for propaganda purposes if someone has dishonest, ulterior motives.

Fake news. According to Haggar (2020), fake news consists of deliberate disinformation, not just misinformation, or information with some minor inaccuracies.

Misinformation. Blackwell (2017) stated misinformation refers to inaccurate information, or erroneous information.

Spin. According to Granger (2019), **s**pin is a media term referring to influencing how a party with a vested interest in something wants the public to perceive the information it is disseminating.

Organization of the Study

This study is organized into five chapters. Chapter 1 included the introduction, background, statement of the problem, purpose of the study, significance of the study, delimitations, assumptions, research questions, and definitions. Chapter 2 provides the literature review which addresses the following topics: an overview of terms related to information illiteracy, examples of conspiracy theories and disinformation, countering conspiracy theories and disinformation, definition of IL, the history of IL, IL in higher education, examples of IL classes taught in higher education settings, and librarians' involvement in teaching IL courses on college campuses. Chapter 3 describes the methodology used to conduct the study including the research design, setting, sampling procedures, instrument, data collection procedures, data analysis and synthesis, reliability and trustworthiness, researcher's role, and limitations. Chapter 4 presents the results of the qualitative data analysis. Chapter 5 provides a study summary that includes an

overview of the problem, purpose statement and research questions, review of the methodology, and major findings. In addition, findings related to the literature and a conclusion section that includes implications for action, recommendations for future research, and concluding remarks are included in the final chapter.

Chapter 2

Review of the Literature

Chapter 2 offers a review of the literature related to the topics of this dissertation. This chapter provides an overview of terms related to information illiteracy including disinformation, misinformation, fake news, conspiracy theories, information illiteracy, and confirmation bias. Examples of conspiracy theories and disinformation are reviewed. Actions to counter conspiracy theories, information illiteracy, disinformation, and misinformation are provided. A definition of information literacy (IL) is provided followed by an historical overview of IL efforts. Information literacy in higher education and examples of IL courses are described. Finally, an overview of librarians' involvement in teaching IL courses in higher education settings is discussed.

Overview of Terms Related to Information Illiteracy

According to Haggar (2020), the difference between disinformation and misinformation has to do with the intention of the source. With misinformation, someone simply got it wrong. Perhaps the source was merely hearsay or second-hand information that had been repeated, but never fully verified. According to Haggar (2020) disinformation refers to false information deliberately spread for some type of ulterior motive--often involving a conflict-of-interest. Regardless of the intention of the original source, both types of information spread rapidly. For over 100 years, social psychologists have known how the power of groups can shape opinion and quash dissent (Bishop, 2009). According to Bishop, like-minded people have always tended to cluster together, "finding safety within the tribe" (p. 159), and reinforcing each other's opinions. In the digital age, this peer-pressure to tow-the-line and adhere to the conventional way

of thinking is no longer limited to geographic areas. People with the same belief systems may not live in the same neighborhoods or attend the same schools, social gatherings, or churches. According to Bishop, they can unite and exchange ideas on the same websites or use the same media sources to gain information that may or may not be accurate. Bishop (2009) called this phenomenon "the homogenous unit principle" (p. 159), and noted that people are less likely to exchange ideas with those having diverse perspectives, and more likely to stick to one or two sources that merely reinforce the views that they already have. According to Rubin (2019), many people tend to stay within their own information-bubble. There is a strong correlation between critical thinking and a plurality of perspectives, while there is also a strong correlation between information illiteracy and a lack of diverse perspectives (Rubin, 2019).

Disinformation involves deliberate deception from one person or a group of people with ulterior motives (Haggar, 2020). Those who spread disinformation deliberately manipulate people's feelings, emotions, and personal beliefs. Having a strong emotional reaction to new information should be a red flag to immediately fact-check it for accuracy (Caulfield, 2017). As far back as 1993, Kuhlthau stressed the importance of using uncertainty as a basic principle of information-seeking. One main source of misinformation is fake news. While the intent may be to spread damaging, false information about an individual or a group of people in order to vilify them, that may not always be the case (Kuhlthau, 1993). Rubin (2019) identified news fabrications as one of four main categories of misinformation and disinformation. However, besides malicious intent as the motivating factor for spreading fake news, other stories begin as satirical fake news, such as a humorous article from a source like *the Onion* that starts

spreading on social media as if it were a real news article. Rubin also identified rumors and hoaxes as another main category of misinformation or disinformation. Like news fabrications, these could either begin with the intent to damage an entity's reputation or merely intend to spin a humorous yarn to see how far it spreads. According to Rubin (2019), the last main category is *clickbait*, which often has a shocking, salacious, and false headline to get susceptible Internet users to click on it, exposing themselves to advertisers, and often even malware that can infect a user's computer. Another term for clickbait is *phishing* (Rubin, 2019).

An early example of fake news without malicious intent, is the fictional 1938 radio broadcast *The War of the Worlds*, directed by and starring Orson Welles who portrayed a fictional newscaster relaying a dramatic, eyewitness account of Martians landing in Grover's Mill, New Jersey, and attacking its residents (Jacobo, 2018). Even though there were regular disclaimers throughout the program that it was fiction and not a real newscast, the following day newspapers across the country reported incidents of panic and chaos due to the broadcast (Jacobo, 2018). According to Tonguette (2018), a story in the National Endowment for the Humanities' Journal even referred to this broadcast as the *original* fake news example.

A parallel can be drawn between *The War of the Worlds* broadcast in 1938 and a relatively recent news story that appeared in the World News Daily Report in 2015 declaring that a ship containing thousands of Ebola-infected rats was heading for the Florida coast (Rubin, 2019). The story included a fake photo, mathematical equations, and fake quotes from fictitious officials and scientists about the impending disaster (Rubin, 2019). While stories like deadly African killer bees were rooted in fact, the

Ebola hoax gained traction and reportedly caused alarm in segments of the country when the news spread through various sources, some of which were legitimate and reputable (Rubin, 2019).

Hopkins and Sugerman (1980), Likhtman (2020), Newman (2018), Robson (2017), and Sheffield (2019) demonstrated how individuals can easily be fooled. Newman (2018) discovered the dramatic difference that including a photo along with a fake news story could make. Whether it was a fake story about a rock star dying, or a dubious scientific claim about a turtle, subjects were much more likely to believe the story when any kind of photo of the subject was included - even if the photo was an old stock photo (Newman, 2018). Robson (2017) described a study that showed a variety of photos portraying real historical events as well as fake photos of events that never happened. Half of the subjects claimed to actually remember the fictitious events after being shown the fake photos (Robson, 2017).

Hopkins and Sugerman (1980) indicated that rumors and conspiracy theories about celebrities have existed for a long time. Sheffield (2019) provided a classic example of misinformation that falsely claimed Paul McCartney died in 1967 and that the Beatles used a lookalike as a stand-in for the remainder of the group's existence. Additional claims indicated that secret clues about McCartney were covertly planted on Beatles albums. According to Hopkins and Sugerman (1980), false claims were also circulated about the Doors' front man Jim Morrison not really dying, but instead running off into some remote jungle area to live. More recently, conspiracy theorists claimed Prince was murdered by the Illuminati and other powerful figures using chemtrails (chemicals released by jet engines to control human behavior) (Likhtman, 2020).

While relatively harmless, conspiracy theories have been around for a long time. However, the frequency with which conspiracy theorists are becoming associated with violent acts like the January 6, 2021 insurrection and Stop the Steal movement illustrates the dangers of information illiteracy and lack of critical thinking (Barry & Frenkel, 2021). In September of 2021, white supremacists on the Proud Boy and the Fascist Pipeline Telegram Channel warned of Globohoms, the mysterious entities controlling the media, finance, and our political system, while praising the way the Taliban took over Afghanistan and their treatment of women and ethnic minorities (Sands, 2021). The Proud Boys also advocated for a Taliban-style revolution here in the United States (Sands, 2021).

According to Blackwell (2017), we tend to believe fake news and disinformation that confirms what we think we already know, while ignoring both accurate information and disinformation if it runs counter to our beliefs. In other words, once our minds are made up about something, we tend to dig in and ignore any information to the contrary even when it is factual (Robson, 2017). Psychologists have elaborated on this phenomenon by explaining that people are inclined to believe things that are simply worded, and easy to understand even if they are false (Robson, 2017). If the information was originally presented by somebody seen as an authoritative figure, people are even more inclined to believe it even if the source of the information lacks expertise in the particular area being discussed (Robson, 2017). People are also more likely to believe the information when it comes from any familiar source. Once the information has been accepted as true, it is difficult to alter or dislodge this belief (Robson, 2017).

Examples of Conspiracy Theories and Disinformation

According to van Prooijin (2019), the human attraction to conspiracy theories is based on our ancient tribal instincts to divide and conquer. This instinct constantly creates an 'us-versus-them' scenario, and fosters distrust of people who are perceived as different from us. Contrary to this instinct, across the United States universities tout diversity as one of the primary goals of mission statements and include it as a primary student learning outcome (Lumpkin, Koldner & Anderson, 2021). Promoting critical thinking and an inclusive, multicultural approach is often stated to be one of the basic paradigms of a liberal arts education (Lumpkin, Koldner & Anderson, 2021). The next sections describe four examples of conspiracy or disinformation theories: critical race theory (CRT), the Illuminati, Pizzagate, and Birds Aren't Real.

Critical race theory (CRT). Critical race theory (CRT) is a basic framework examining society's inequities from a historical and sociological standpoint (Hartlep, 2009). It is based on ideas and concepts developed by legal scholars such as the late Derrick Bell, an N.A.A.C.P. lawyer and the first black professor at Harvard University, and Kimberle' Williams Crenshaw, a law professor at the UCLA School of Law and Columbia Law School (Fortin, 2021). CRT discusses persons' lived experiences and their stories of racism, resulting in qualitative data. The theory also uses quantitative data about discrimination compiled from researchers to document inequities (Hartlep, 2009). There are many different components to CRT, and many different viewpoints among researchers who study it. CRT proponents make the argument that ingrained, systemic racism is still rampant in the U.S. legal system, the U.S. financial system, and American society in general (Cobb, 2021). Systemic racism puts people of color at a disadvantage

(Fortin, 2021). Several researchers have reported data that document systemic racism. Martin and Nakayama (2014) found that African-Americans are much more likely to get followed around department stores by security, and are much more likely to get pulled over by the police. According to Haynes (2020), nationwide, unarmed Black men get shot and killed by police over three times more often than white men. In Chicago, Blacks are 650% more likely to get shot and killed by police as whites (Haynes, 2020). Statistically Blacks have much less trust and confidence in law enforcement officers than whites do (Martin & Nakayama, 2014). Studies conducted in Chicago and Boston indicated that job applicants with *White-sounding* names such as Greg Kelly or Emily Walsh were 50% more likely to get called in for job interviews than applicants with common names for African-Americans such as Jamal Jackson or Lakisha Washington, even when the applicants with the *Black-sounding* names had a more advanced degree, or eight years more experience (Martin & Nakayama, 2014). Until recently, many history teachers in the United States described how our country was *discovered* by Christopher Columbus, eventually leading to our founding fathers writing the Constitution guaranteeing justice, equality, freedom, and liberty for all (Martin & Nakayama, 2014). This ignores the fact that there were 8 to 10 million Native Americans from hundreds of different tribes already living in the area which is now the U.S., who were systematically killed off by occupiers from Europe (Martin & Nakayama, 2014). This version of U.S. history also white-washes the fact that the White House and the U.S. Capitol building were built utilizing slave-labor from people who had been enslaved and kidnapped from African countries. The U.S. Constitution only guaranteed justice, equality, freedom, and liberty for wealthy, white, male landowners (Martin & Nakayama, 2014). CRT presents

a more balanced, nuanced version of history and also rejects the concept of color-blindness: that everybody is now equal and there is no need to talk about racism, cultural issues, or racial disparities because it no longer exists. Arguments against color-blindness include the fact that racism does still exist, and a color-blind approach does not allow for any substantive discussions about race, ethnicity or cultural diversity--it often involves a blaming the victim approach (Martin & Nakayama, 2014).

While the roots of CRT go back at least as far as the 1980s, many Americans had never even heard the term prior to 2020 (Fortin, 2021). By 2022, disinformation and conspiracy theories about CRT ran rampant on social media, and spread rapidly throughout various forms of the media. It has now become a hot-button, divisive issue among the general public affecting institutions of higher education as well as school boards across the country (Fortin, 2021). The disciplines of Black history and intercultural communication started receiving negative attention after an interview that Tucker Carlson conducted on the Fox News with Christopher F. Rufo, a political activist for the conservative think-tank the Manhattan Institute (Fortin, 2021). Shortly after this interview Donald Trump issued an executive order to federal agencies banning any training involving CRT, diversity, or anything that might suggest the United States was fundamentally racist (Fortin, 2021). Other politicians soon jumped on the bandwagon. Some members of Congress began referring to CRT as "a racist cult of indoctrination coming for our children" (Jones, 2021, p. 1). Others labeled CRT as *radical* and *militant* (Jones, 2021). According to Edsall (2021), Rufo was proud of the controversy he had stirred up:

> We have successfully frozen their brand--"critical race theory" into the public conversation and are steadily driving up negative perceptions. We will eventually turn it toxic, as we put all of the various cultural insanities under that brand category. The goal is to have the public read something crazy in the newspaper and immediately think "critical race theory," we have decodified the term and will recodify it to annex the entire range of cultural constructions that are unpopular with Americans (p.1).

The Illuminati. Some conspiracy theories have obvious anti-Semitic or racist themes which run counter to the truth-seeking, inclusive mission of most universities. One evolving conspiracy theory has included various claims about a mysterious group of Jewish bankers called the Illuminati, controlling everything from the various world governments to the banks and even the weather (Rosenwald, 2018). Smith-Galer (2020) wrote about Viren Swami, a professor of social psychology at Anglia Ruskin University who suggested that people who believe such theories may be suffering from some sort of psychopathology. According to Smith-Galer (2020), in 2019 psychologists discovered that people with higher levels of education are much less likely to believe conspiracy theories.

A group called the Illuminati did actually exist at one time, inspired by the ideology of the Freemasons, a group of stone-cutters with progressive ideas (Smith-Galer, 2020). Around 1776, during the Enlightenment era, a Bavarian secret society of intellectuals called the Order of the Illuminati was formed that was critical of the German government and some of the religious and philosophical norms of the time (Smith-Galer,

2020). The Order of the Illuminati was shut down by the government and the Catholic Church by the late 1780s (Buxton, 2005).

Rosenwald (2018) found that the conspiracy theory involving the Illuminati and wealthy Jewish bankers dates back over 200 years to the Battle of Waterloo, when anonymous anti-Semites attempted to vilify the Rothschild family, known as the wealthiest family in the world at the time. In 1846, over 30 years after Waterloo, a pamphlet was printed with an attribution that claimed it was written by Satan. In the pamphlet it was stated that Nathan Rothschild exploited advance information, enabling him to beat other news carriers by 24 hours so he could make a fortune on the stock exchange (Rosenwald, 2018). In 2011, when a branch of the Rothschilds family bought a controlling stake in the Weather Channel, conspiracy theorists claimed the Illuminati was somehow trying to control the weather and profit from forest fires, floods, hurricanes and other disasters (Rosenwald, 2018). A variation on this anti-Semitic theme was pushed by Congressperson Marjorie Taylor-Greene, who claimed the massive forest fires on the west coast were not the result of climate change but were instead caused by secret Jewish space lasers (Chait, 2021). Perhaps more troubling are Congressperson Madison Cawthorne's 2017 posts from the social media site Instagram that resurfaced recently with photos of Cawthorne and his brother smiling in front of Adolph Hitler's vacation house, the *Eagle's Nest* in the Bavarian mountains. Although Cawthorne referred to Hitler as the "Supreme Evil," he also stated that visiting "The Fuhrer's house" had always been on his "bucket list" (Sales, 2020, p.1). Cawthorne has also been criticized for flying a Betsy Ross flag in his hometown of Asheville, N.C., a symbol recently adopted by white supremacist and anti-Semitic groups (Sales, 2020). Although Asheville, N.C. is a

town of less than 100,000 people, there has been an uptick in anti-Semitic activity in Asheville over the last several years (Helmore, 2019). During Hanukah season in 2019, an unknown vandal painted a red swastika over a mural of soul music/rhythm and blues legend Tina Turner on a record store in Asheville (Helmore, 2019). The owners of the store reported the incident to the Southern Poverty Law Center, which tracks hate crimes, as well as reporting it to the police (Helmore, 2019).

According to Smith-Galer (2020), the origin of these various theories about the Rothschilds and the Illuminati lies not only in slanderous disinformation, but also in parody and satire, thanks to the 1960s counter-culture movement. In 1963, Kerry Thornley and Gregory Hill wrote a parody of a religious guide called *The Principia Discordia*, and photocopied a small number of copies (Buxton, 2005). Although it did not gain much attention initially, in 1969 at the peak of the counter-culture movement, an underground comic book company called the Rip-Off Press released a new edition of the text (Buxton, 2005). Coinciding with the new edition of *The Principia Discordia*, Thornley began what he called the Discordian Movement, which not only pushed the fake concepts of the New Order and the Illuminati, but also encouraged civil disobedience as well as other hoaxes and public practical jokes (Smith-Galer, 2020). According to Smith-Galer, to further spread their gospel, Thornley and Wilson began writing fake letters to *Playboy Magazine* with outrageous claims about the Illuminati and various ideas such as mind-control. Not only did they try to make each claim more outrageous than the previous one, they also strove to make every letter contradict the prior ones (Smith-Galer, 2020). According to Smith-Galer (2020), Thornley and Wilson had two purposes: (1) to loosen up a stodgy, conservative, authoritarian society; and (2) to create such a random

marketplace of ideas that people would be forced to use their critical thinking and IL skills to sort through it all and determine the veracity of all claims. Libraries have been uncertain how to classify the *The Principia Discordia* and have considered various classifications including science fiction and fantasy, philosophy and religion, humor and satire, and parapsychology and occultism (Buxton, 2005). While this particular conspiracy theory may date back over 200 years, according to Beene and Greer (2020), "Conspiracy theories have existed since time immemorial" (p. 1).

Pizzagate. According to Beene and Greer (2020), some conspiracy theories may have actually been initiated as jokes. The origins of the Pizzagate conspiracy may have initially been a joke even though it almost ended in tragedy when a confused gunman burst into the Washington D.C. pizza parlor to rescue the enslaved children (Haag & Salam, 2017). According to Beene and Greer (2020), in the early 2000s, a computer programmer named Christopher Poole launched a website for Internet memes called 4 chan. Regular visitors to the site started using their own abbreviations and jargon for their posts. Although the abbreviation CP was sometimes a reference to child pornography, it was also used by regular visitors to mean cheese pizza (Beene & Greer, 2020). In 2016, when Hillary Clinton was running for president, the Chans, as the people who posted regularly on the site called themselves, also began using the initials CP to refer to Clinton and her campaign manager, John Podesta. After Podesta began organizing Democratic campaign events at the Comet Ping Pong pizza parlor, the Chan community began to snidely refer to the restaurant as CPP (Beene & Greer, 2020).

Just as members of the '60s counter-culture movement and its pranksters helped breathe life into the Illuminati, the concept of Pizzagate seems to have originated as a

joke by some of the various fractal communities of the 4 chan site (and its successor 8 chan). "Insider jokes and communities are how many of these conspiracy theories gestated" (Beene & Greer, 2020, p. 2). This was also the website where Q-Anon was born, even though it is not clear who is providing the disinformation attributed to Q (Beene & Greer, 2020).

Birds Aren't Real. A more recent example of a satirical conspiracy theory is the *Birds Aren't Real* campaign (Lorenz, 2021). Peter McIndoe was a young college student when he developed the scenario for Birds Aren't Real, even hiring actors to play *Bird-truthers*, and shadowy, former government agents who were in-the-know with top-secret information. Unlike Q-Anon adherents, most members of *the Bird Brigade* were born into Generation Z, and they were in on the joke (Lorenz, 2021). McIndoe said the premise that birds are actually secret, government surveillance devices, landing on power lines so they can recharge and monitor American citizens is meant to be so ludicrous that it should make people question all conspiracy theories. It was social satire designed with a purpose (Lorenz, 2021).

Countering Conspiracy Theories and Disinformation

Some conspiracy theories may have a grain of truth in them, which true-believers cling to as evidence, making it more likely that the theories will proliferate. For example, there actually was a group called the Illuminati. However, this secret society disbanded under pressure prior to 1790 (Smith-Galer, 2020). Another example would be that there is some truth to the claim that the moon landing footage is a fake, since the National Aeronautical and Space Administration admitted in 2009 that the original video footage had been taped over decades ago, and that a Hollywood company called Lowry Digital

had used Computer Graphic Imaging (CGI) to clean up and restore footage from inferior second-generation copies retrieved from television stations around the world. "The conspiracy theorists are going to believe what they are going to believe," stated Lowry Digital Chief Operating Officer Inchalik (Fox, 2009, p. 1). Wolf (2021) had a different take on the moon landing and claimed, "You can believe in UFOs without believing Trump's election lies" (p. 1). This paradoxical statement from Wolf (2021) summed up the difficulty of changing the beliefs of conspiracy theorists once their minds are made up.

According to Robson (2016), Eryn Newman, a cognitive psychologist at the University of Southern California suggested five questions should be asked to determine the viability of information:

1. Does the fact come from a source that is reliable and credible?
2. Do other authoritative people believe it?
3. Is there plenty of evidence to support it? How about evidence to the contrary?
4. Is it compatible with what I already believe?
5. Does it tell a good story? (p. 1)

Robson also recommended asking ourselves whether we would still trust the methodology of a study and believe its results if the study disagreed with what we already believed. Other academics have argued understanding and utilizing the scientific method is the key to resisting disinformation (Robson, 2016). According to Zucker, Noyce, and McCullough (2020) teaching students and others to explore a variety of

claims from various sources may be one way to inoculate them from readily believing fake news

Rubin (2019) described the problem as a disinformation and misinformation triangle. Another metaphor would be a three-legged stool. One side of the stool represents fake information as a virulent pathogen, another side is the online media as a conducive environment, and the third side consists of gullible readers as susceptible hosts. Rubin proposed three solutions, one targeting each area. Automation would be aimed at countering disinformation, misinformation, and any type of fake news on social media platforms. If an article has been flagged as false by fact-checkers, some sites like Facebook are now including disclaimers alerting readers that it contains wrong information. Legislative regulation of the media if it spreads false disinformation is aimed at the online media as a conducive environment. Rubin (2019) suggested that education, with an interdisciplinary approach coordinated by librarians would target teaching gullible readers (the susceptible hosts) to resist fake news by developing their own critical thinking abilities.

Definition of Information Literacy

The American Library Association (n.d.) defined IL as "a set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information" (p. 1). The Technology and Social Change Group (TASCHA) (2021) stated IL defines one's information needs, and allows people to develop search strategies, analyze, critique and evaluate the information they receive, and use this authoritative information to meet their needs. The caveat is that individuals must want to seek out this information themselves and assess it accurately.

According to TASCHA (2021), individuals also need to seek information by themselves and process it rationally. There are many barriers to IL and reasons for the widespread nature of information illiteracy. One problem identified by TASCHA (2021) was that often individuals are not seeking out information. Instead, the disinformation is seeking them out. According to TASCHA (2021), algorithms are often used to predict what sources an individual will click on and read due to prior search histories, groups they are involved with on social media, and other factors, including which posts they like and repost. TASCHA (2021) concluded that one reason disinformation is so powerful is because it is designed to trigger strong emotional responses in those receptive to it, such as anger, fear, and confusion as well as people's sense of disenfranchisement and lack of power and control over their own lives.

The History of Information Literacy

Some academics trace IL back to the discipline of studying logic, which began in the 4th and 5th centuries Before the Common Era (BCE) with the Sophists and the ancient Greek philosopher Plato (Bobzien, 2020). The Sophists and Plato studied rhetoric, sentence analysis, and truth versus logical fallacies. However, it was Socrates who systematized this logical inquiry, and he is considered the first great logician (Bobzien, 2020). Socrates' work was considered comprehensive, and was widely taught from the 4th century Common Era (CE), through the 19th century CE (Bobzien, 2020). Rubin (2019) stated that teaching methods used by Plato, Aristotle, and Socrates included Socratic discussion and peripatetic learning, which involved strolling around engaging in deep philosophical discussion.

Retired professor Fred Whitehead taught a course titled *Logic* for a Midwestern community college's PACE program - a program designed for older, working adult students. *Logic* was a required class and part of the core curriculum (F. Whitehead, personal communication, November 29, 2021). Based on his experience as an instructor, Whitehead stated that logic classes at the college level evolved from the 1960s until the 1980s, beginning with a basic approach consisting primarily of Venn Diagrams and then evolving to a comprehensive approach using modern news media, as well as advertising to illustrate syllogisms, logical fallacies, and the validity and soundness of an argument (F. Whitehead, personal communication, November 29, 2021). According to Whitehead, most of these classes were rebranded as *Critical Thinking* classes by the mid-1980s, and many were taught with an interdisciplinary approach. However, they faded in popularity by the 1990s. Thompson (2021) stated logic is often thought of merely in the realm of computer science and coding, when it is really so much more. Logic exists in the humanities and the arts, as well as math and science. Thompson stated that in the realm of education it is imperative that logic and critical thinking be taught as early as middle school. The process of sustained inquiry can help students identify logical fallacies and enable them to clarify their own thoughts, have a broader understanding of a variety of issues, and explain their own thinking and reasoning. Sustained inquiry is one crucial method of promoting logic, critical thinking, and IL (Thompson, 2021).

Another predecessor of modern logic, critical thinking, and IL classes is bibliographic instruction. As early as the 11th century, when individuals preparing to become monks returned to their monasteries, they would entrust their lecture notes on Aristotle, Plato, and a variety of other subjects, including medicine and law, within the

university library. These notes had limited distribution due to lack of printing capabilities at the time. In 1446, the printing press was invented by Johannes Gutenberg. As public libraries and private collections of books and other printed material began to grow, the need for some sort of systematic organization became necessary and libraries and universities were built throughout much of Europe (Beghtol, 2004). In the 16th century, Cardinal Mazarin's private library in France, and the Escorial library in Madrid, Spain become so massive that new methods of storing and organizing the books were initiated (Beghtol, 2004). With the help of Mazarin's librarian Gabriel Naude, the libraries began storing books vertically on shelves against the walls with the spines outward. Naude wrote the first modern essay on library commerce and organization, which translates to *Advice on Establishing a Library* (Lemke, 1991).

According to Hernon (1982), IL programs evolved from library instruction efforts dating back to the 1800s. Forbes (2020) indicated that traditionally, library instruction classes were tool-based rather than concept-based. Students learned how to access and retrieve information using card catalogs, microfiche, and much later databases of academic journals (Forbes, 2020). Classes focused on IL are concept-based, building on the process of accessing and retrieving accurate information, considering it critically, and using it ethically. Information literacy promotes lifelong learning across the curriculum (Forbes, 2020).

In President George H. W. Bush's State of the Union address for 1990, Bush announced his "National Goals for 2000," including a focus on critical thinking in education, and in 1991 Bush signed the American Literacy Act into law (Robyns, 2001). This created the National Institute for Literacy, which authorized the use of municipal

libraries as centers for adult learning ("George H. W. Bush Presidential Library," n.d.). According to Hassani and Nfissi (2015), traditional literacy just meant the ability to read and write. However, this definition is no longer adequate in the information era (Hassani & Nfissi, 2015). Although the term *information literacy* was coined in 1978 by Paul Zurkowski (Yevelson-Sharsher & Bronstein, 2018), it was not until the beginning of the 21st century that a new form of media - the Internet - unleashed a torrent of information lacking the quality-control of prior forms of print and electronic media. Robson (2017) indicated that David Mikelson, the co-founder of the website Snopes.com, a fact-checking website designed to debunk fake news, hoaxes, and other forms of disinformation and misinformation, said, "The bilge is rising faster than you can pump," (p. 1). In 2016, web-traffic to Snopes almost doubled to 13.6 million visitors because of the ubiquitousness of fake news (Robson, 2017). According to Dyrendal and Jolly (2020), the seriousness of the IL problem goes back decades. Although this statement got little attention, the investigators of the 9/11 Commission concluded that the terrorists who attacked New York City were products of an environment severely lacking in education and any kind of knowledge of the rest of the world's thinking, culture, history or language and understanding (Dyrendal & Jolly, 2020). The terrorists were information illiterate.

Although the United Nations Educational, Scientific, and Cultural Organization (UNESCO) has been around since 1946, in 2017 it declared IL crucial, and published a Media and Information Literacy Framework (MIL) (Haggar, 2020). Five laws of media and information literacy were included in the framework: 1. People are users and consumers of information. 2. All sources of information should be considered equally. 3. All information is not value-neutral. 4. Information is a necessity. 5. MIL is a lifelong

learning project. However, UNESCO's declaration that all information should be considered equally should not be interpreted to mean that all sources were accurate, or that all of them were equally trustworthy (Haggar, 2020).

Rubin (2019) identified three alarming trends that are promoting the epidemic of disinformation and misinformation: 1. Fake information is a virulent pathogen. 2. Online media provides a conducive environment for fake information. 3. Gullible readers for misinformation and disinformation are susceptible hosts. According to Rubin, a three-pronged approach that includes automation, education, and regulation should be used to address and resolve the problem of disinformation and misinformation (Rubin, 2019).

Information Literacy in Higher Education

Although Paul Zurkowski coined the term *information literacy* and developed the concept, he was not an academic. He was a lawyer and a businessman working for the private sector (Badke, 2020). Zurkowski believed everybody should be information literate, but he also believed that information had a monetary value and should not be given away. He felt that the private sector was best equipped to produce an imaginative, constant flow of information, although he thought it was the government's job to regulate and control it (Badke, 2020). According to Badke (2020), Zurkowski stated, "Information is money is power," (p. 49).

While Zurkowski had the foresight to predict some sort of national database that could be shared, it is unlikely that he could have seen what the Internet would be like now (Badke, 2020). Today's college students may consider themselves information literate because they are constantly Googling and sharing information using a variety of mobile devices. Although they have easy access to information, they rarely fact-check

it, and usually click on the first or second source that a Google search provides (Wiebe, 2016). Not only are they merely scratching the surface of information sources, Google actually sells search optimization for moving sources to the top of the list if you are willing and able to pay for the privilege. While a Google search may be invaluable for a quick answer to a question, it has little to do with IL (Wiebe, 2016). According to Wiebe (2016), this readily-available, easily-accessed information and sharing is the reason that the concept of IL moved from the private sector to the realm of higher education. Many college students do not differentiate between a quick Google search and real IL based research (Wiebe, 2016). Information literacy is now a true academic discipline and one of the liberal arts, whether it is taught as a single class or classes, or taught as one segment in a number of courses across the curriculum (Wiebe, 2016). Wiebe (2016) described IL as a holistic type of metacognition, empowering students to have the complex mental framework to actively learn, solve complex problems, and obtain detailed, nuanced information from a variety of sources, for a lifetime of learning. While some universities do not even have an entire IL class for one credit hour, Washburn University in Topeka, Kansas, not only offers 11 different IL classes ranging from 1-3 credit hours, but also offers an IL minor (Washburn University, n.d.).

According to Wiebe (2016), although the field of IL has moved from the private sector to academia, it is still important in the private sector. One section of the University of Washington's Project Information Literacy has focused on college graduates and their employers. Wiebe (2016), indicated that as part of Project Information Literacy, 23 leading employers were interviewed about their expectations of newly hired employees who had recently graduated from college. Not only did the employers expect their

employees to be able to conduct a careful Internet search, they also expected them to be excellent researchers who were able to delve into complex sources of information about a variety of subjects, extract a wealth of information, and identify patterns in the data (Wiebe, 2016). However, according to Wiebe, the employers interviewed reported that new-hires often obtained quick answers from the first source to pop up as the result of a Google search. An earlier study from 2013 conducted by the Association of American Colleges and Universities (AAC&U) found that 72% of employers surveyed believed that institutions of higher education should place greater emphasis on the "location, organization, and evaluation of information from multiple sources" (Wiebe, 2016, p. 1).

Information literacy is at the heart of freedom of expression, and the ability to process and share accurate information (Hassani & Nfissi, 2015). However, IL is much more than communicating effectively. According to Oakleaf and Kaske (2009), IL translates into increased student learning. One of the fundamental values of developing IL in institutions of higher education is teaching students the advanced critical thinking skills necessary to learn how to learn, and to learn how to think for themselves. By incorporating IL into college curriculums, educational institutions are empowering students to become informed citizens and lifelong learners (Hassani & Nfissi, 2015). These critical thinking skills and other elements of IL transfer to many areas of students' lives after they graduate (Malloy, 2018).

Besides many educators being alarmed by the spread of disinformation and fake news, the growing problem has even garnered the attention of politicians (Zucker, Noyce & McCullough, 2020). These authors indicated that in 2016, the governor of Washington signed SB 6273, addressing media literacy and digital citizenship education in schools.

A follow-up bill was signed the following year (SB 5449) which actually implemented the provisions of the previous bill. Although these bills directly pertained to K-12 students, they were aimed at the IL and digital media literacy necessary to transition to institutions of higher education. Legislation was considered in the state of Washington in 2021 that would increase grant money for IL and digital citizenship, but also address the growing problem of *synthetic media*, or *deepfakes*, which uses computer graphics and fake audio based on prior recordings and footage of an individual to make it sound and look like that person is saying things that he or she did not actually say (Media Literacy Now, 2021). Synthetic media could increase the impact of fake news, and the bill being considered in Washington in 2021 was aimed at teaching students to recognize fake media and help inoculate the students against it (Media Literacy Now, 2021)

Despite the efforts of some legislators to address the problem of information illiteracy prior to college, many freshman students attending college for the first time lack the fundamental skills to do basic research, and critically evaluate and synthesize the information they obtain (Hassani & Nfissi, 2015). While this is a major issue in the United States, it is even more of a problem in developing nations (Hassani & Nfissi, 2015). Information literacy involves developing deep critical thinking, and the ability to conduct a thorough, in-depth analysis of the information (or misinformation) being reported in the news and social media. Not only are these skills necessary for a broad, liberal arts education, they are also transferable skills that will help students be successful for the rest of their lives (Malloy, 2018).

The Scottish Information Literacy Project (SILP) considered IL to be the cornerstone of learning, not only in higher education but from grade school to the

workplace ("Information Skills for," n.d.). Being adept at accessing and using information is invaluable in all areas of life, including learning new skills, training for a job, and making informed decisions about health and medical issues, as well as making informed decisions about civic issues such as which candidate to vote for, and what issues to vote for or against. Information literacy is empowerment and does not stop with graduation ("Information Skills for," n.d.).

While many universities are requiring an IL class, at the University of North Carolina Wilmington, students must take a total of 9 credit hours in IL, beginning with *First-Year-Experience*, and concluding with an IL class that is specific to individual students' majors (Pemberton & Siefert, n.d.). According to Pemberton and Siefert (n.d.) the University Studies' assessment for general education notes that all disciplines use information, although the sources may vary. Regardless of their majors, students must be able to determine what information they need, be able to access it, evaluate it critically, and use it in an effective, ethical manner (Pemberton & Siefert, n.d.).

The ultimate goal of an IL program is increased student learning. However, some type of assessment is necessary to determine whether or not goals and student learning outcomes are actually being met (Oakleaf & Kaske, 2009). Formative assessments can be performed while the program is in progress, requiring accountability and allowing changes during the implementation of the program. Summative assessments are conducted after the instruction is complete, when a bigger picture of how effective instruction was can be observed (Oakleaf & Kaske, 2009). According to Oakleaf and Kaske (2009), whether or not the results of the assessment are positive or negative, they

can still be used to strengthen instructional performance, which should lead to increased student learning.

Examples of Information Literacy Classes Taught in Higher Education Settings

Several examples illustrate the course content of IL courses taught in higher education settings. Information literacy became one of the core general education requirements at Meredith College in Raleigh, North Carolina in 2003 (Meredith College, n.d.). The course content of *Information Literacy Level 1* defines a topic, uses an appropriate discovery tool, discusses the wide variety of sources available, and evaluates information in various formats. The course content of *Information Literacy Level 2* focuses on carefully articulating a research question, and utilizing advanced research from databases as well as peer-reviewed journals to answer the research question. The course content of *Information Literacy Level 3* ties in with individual students' majors and is geared toward the specialized resources and research skills necessary to conduct research in various disciplines (Meredith College, n.d.). The first two levels of IL classes fall under the English department, while the third level is linked with the students' majors. All three levels are taught by librarians at the Carlyle Campbell library, and the course content for all three levels is taught with an interdisciplinary approach to lifelong learning (Meredith College, n.d.).

Mastering Lifelong Learning is a class that Cleveland University-Kansas City offers that is aimed at teaching beginning undergraduate students to apply skills they will need to be successful learners in the college setting (Cleveland University-Kansas City, n.d.). The main text used is *Becoming a Master Student* (Ellis, 2017). While the course content emphasizes reading comprehension, research skills, mnemonic devices, and even

health, it's main focus is on IL and critical thinking (Ellis, 2017). In-class discussions and regular exercises involving current events are designed to make students go beyond the brief sound-bites they might see or hear on social media, digging deeper into a particular subject, and possibly even questioning their own beliefs. A lengthy list of reputable, authoritative sources from the United States and other democratic countries is provided for students to research, and each exercise must cite at least three or four sources. Students are welcome to express their opinions freely in class, and disagree respectfully while the professor moderates and acts as a gatekeeper (M. Kissel, personal communication, February 28, 2022).

According to Malloy (2018), IL instructors at American University use a game to teach students the difference between legitimate news and information, and fake news, satire, ads, or opinions. *Factitious* was developed as a grant-funded collaboration between game designers and journalists at American University (Malloy, 2018). Students compete with each other to identify fraudulent versus reliable sources and real news versus fake news. The game features swipe left or swipe right controls, and contestants get instant feedback based on their choice. Designers also included a help option with tips to assist students in spotting fake news (Malloy, 2018).

Disinformation is not just an American problem, it is an international concern (Malloy, 2018). Dutch researchers in the Hague have developed another creative game for IL instructors called *Bad News* (Malloy, 2018). The Disinformation Research Organization (DROG) is a collaborative group of academics and journalists in South Holland coordinating their efforts with researchers from Cambridge University in the United Kingdom (Malloy, 2018). According to Malloy (2018), with the innovative game,

Bad News, students are allowed to play the villain role, or the disseminators of the misinformation. They gain points by fooling people and gaining followers and credibility. Their sequences mirror real disinformation campaigns like trolling, discrediting, and spreading conspiracy theories (Linden, Leisurowitz, Rosenthal, & Maibach, 2017). The purpose of the game is to develop skepticism, and detection of disinformation through inoculation theory (Linden, Leisurowitz, Rosenthal, Maibach, 2017). According to van der Linden, Roozenbeek, and Compton (2020), the idea of inoculation theory was developed by William J. McGuire in the early 1960s. McGuire's idea was to *inoculate* people against phony arguments and misinformation by preemptively introducing accurate information and strong counter-arguments ahead of time - much the way a medical inoculation of a dead or weakened virus strengthens the immune system to recognize a dangerous virus at first exposure. By forewarning people about the dishonesty and inaccuracy of much of the information circulating, people are much less likely to buy into fake news and misinformation. Even if they already believe something that is completely false, inoculation theory has the potential to weaken an individual's belief system. Metaphorically, the prevention is easier than the cure (van der Linden, Roozenbeek, & Compton, 2020).

Some academics studying IL and fighting misinformation are experimenting with popular games and activities to fight fake news (TASCHA, 2021). Many cities have escape rooms designed for entertainment. Customers pay to participate and look for clues that will help them escape. If they figure out the puzzle in a specified amount of time, their team wins the game. In recent years, researchers at the University of Washington Information School have been developing an educational escape room to

help students identify misinformation and blow holes in conspiracy theories (TASCHA, 2021). The educational escape room could give IL instructors an engaging tool to fight misinformation and conspiracy theories, since this type of game would be even more immersive and experiential than other options such as *Bad News*. Coward (2021) stated that using this format to fight fake news was more difficult than he and his colleagues first envisioned when they received the initial grant money. Because of Covid-19, the pilot project has utilized online escape rooms rather than actual physical spaces. However, initial reactions from participants have been encouraging. One student stated he or she "didn't realize the level of sophistication and trickery that goes into spreading misinformation" (Coward, 2021, p. 1).

At Paritan Valley Community College in Branchburg, New Jersey, *Information Literacy I* is a segment of beginning English Comp. This 80-minute segment is taught by the Instructional Services Librarian, and is a required class and part of the college's core curriculum (Dempsey, n.d.). The course content is designed to introduce students to the strategic exploration of research topics, providing them with the tools to match their information needs with the appropriate types of sources. After completing the course, students should be able to discern whether sources are authoritative and legitimate, or whether they are merely spreading disinformation (Dempsey, n.d.).

Librarians' Involvement in Information Literacy

Contemporary academic librarians teach IL classes and advocate for their importance as part of a core curriculum. Librarians were some of the earliest scholars to realize the importance of IL (Wiebe, 2016). As far back as 1956, Patricia Knapp, of Wayne State University, declared effective use of the library and the advanced research

skills and critical thinking that go along with it as one of the liberal arts. Although this was decades before Zurkowski coined the term IL, Knapp's references to use of the library were similar to the basic skills necessary to become information literate (Wiebe, 2016).

Eamon C. Tewell, a reference librarian and instructional librarian at Long Island University, in Brooklyn, N.Y. has conducted mixed method research from the mid-2010s addressing what he referred to as critical IL (Tewell, 2018). According to Tewell (2018), critical IL is a mindset and instructional technique that examines social justice, inequities in society, power differentials, progressive change, and a student-based, student-led approach to critical thinking and problem-solving of real issues in society. Tewell's two research questions addressed how academic librarians incorporated critical IL into their pedagogy and instructional methods, and what benefits and challenges they experienced from their critical IL instruction. The methodology for his study included data from 154 online questionnaires with closed-ended questions, as well as interviews of 13 *Critical IL* instructors (Tewell, 2018). The author identified what the instructors perceived to be their most valuable teaching methods, as well as problems and barriers they faced. Five themes were identified in teaching content: classifications, search examples, academic conventions and access, corporate media, and alternative media (Tewell, 2018). Students from various IL classes were not only taught how to search for accurate, honest information, but they were also exposed to alternative information sources, and taught to think about the biases and hidden agendas of much of corporate media who owns the press (Tewell, 2018).

Tewell (2018) identified the five challenges librarians reported facing when teaching *Critical IL*: time, the one-shot model, student expectations, teaching basics, and institutional roadblocks. Insufficient time to develop IL was reported by many of the respondents, but institutions using a one-shot model were the ones most negatively affected by the lack of time to really allow students to develop and utilize the concepts of IL. Some respondents noted that many students considered learning certain basics like the Dewey Decimal System as something unnecessary and antiquated. Other instructors reported the lack of time to teach both IL basics and the more advanced concepts and skills were the biggest challenges to teaching IL. Finally, legal and institutional roadblocks running counter to academic freedom at some colleges and universities hobbled librarians from discussing certain controversial ideas, such as Critical Race Theory (Tewell, 2018; Dutton, 2021). Dutton (2021), Bower (2021) and Villarreal (2021) provided examples of legal and institutional roadblocks related to IL teaching. Dutton (2021) reported that Florida Governor Ron DeSantis proclaimed CRT would teach our children that "Our country is rotten, and our institutions are illegitimate!" (p. 1). DeSantis also described CRT as "toxic" (p. 1). This is a prime example of our politicians spreading disinformation about CRT. On March 28, 2022, DeSantis also signed Florida HB 1557, often referred to as the "Don't Say Gay" bill into law, prohibiting any type of discussion about sexual preference or gender identity in Florida schools (Diaz, 2022). According to Bower (2021), one student journalist at Liberty University, a southern Baptist institution, jumped on the bandwagon to ban CRT, concluding that CRT has a fatal flaw, which is that it is "irrepressible," offering "no foundational solution to the problem it addresses" (p. 1). Bower (2021, p.1) elaborated by stating that the only real

answer to racism is a fair and just God. The state of Idaho has banned public schools and universities from teaching that any group of people is superior or inferior (Dutton, 2021). Although thinly veiled as an antidiscrimination law, the bill clarified that discrimination is what CRT teaches, thus it is forbidden and illegal (Dutton, 2021). The state of Arkansas bans teaching CRT or any type of divisive concepts in college classes or diversity trainings, and legislators in eight other states are also debating banning divisive concepts (Dutton, 2021). According to Villarreal (2021), former President Donald Trump also banned CRT and any type of diversity or sensitivity training for federal employees and federal contractors. In 2021, lawmakers in a dozen other states were also considering a ban on CRT in education (Dutton, 2021). According to Dutton (2021), Republican congresspersons continue pushing these bans across the country. After the Washoe County School District in Nevada released the English Language Arts curriculum for primary students focused on integrated social justice learning experiences that provide opportunities for valuing human dignity, fostering cultural diversity and building critical thinking, a conservative group called *the Nevada Family Alliance* declared the curriculum as "concerted efforts to indoctrinate students in the leftist narrative," (p. 1) alleging this was a way to brainwash students with CRT (Villarreal, 2021). The Nevada Family Alliance went as far as to suggest mandating that teachers wear body-cameras so they would be monitored to teach only ‘traditional’ information (Villarreal, 2021).

Another challenge identified by respondents in Tewell's (2018) study was that while some librarians developed a collaborative approach involving the librarian, students, and faculty members, other librarians reported faculty members were reluctant

to relinquish any of their control, expressing a power-differential over the librarians. Many students were also initially uncomfortable with a student-led approach facilitated by academic librarians. Many were not used to an instructor asking them for their opinion (Tewell, 2018).

Tewell (2018) also identified five reoccurring benefits, or positive elements, reported by the instructors of the IL classes. These included increasing engagement, increasing meaning for students, increasing meaning for librarians, connecting with faculty, and creating community. Participants recommended a *play-it-by-ear* approach to instruction, advising others to trust their instincts. Study respondents indicated controversial subjects should be addressed in a sensitive manner, with the instructor approaching slowly and asking meaningful questions of students inviting them to do the critical thinking and evaluation and analysis of the information themselves. The librarians in Tewell's study advised others that nobody has to be an expert on a certain topic in order to facilitate or conduct research on that topic (Tewell, 2018).

According to Beene and Greer (2020), a core professional value of librarians is ensuring that the United States and other democratic countries have an informed citizenry. Beene and Greer (2020) stated librarians are experiencing an accelerated need among patrons and students for IL and all forms of critical thinking. Librarians' involvement in fighting the information illiteracy problem is increasing, as they are in the unique position of having a plethora of external disciplines at their fingertips (Beene & Greer, 2020). While academia seems to be more specialized and siloed than other professions, librarians have access to information from varied disciplines including

psychology, sociology, climatology, biology, infectious-disease specialties, political science, communication studies and more at their disposal (Beene & Greer, 2020).

The American Library Association (n.d.) defined IL as "a set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information" (p. 1). In January 2016, the Association of College Research Libraries adopted *The Framework for Information Literacy* (American Library Association, n.d.). This framework identified the basic components of IL as critical thinking and evaluation, study skills, and search skills. The framework encouraged individuals to develop an awareness of how they are engaging with the digital world and how they are finding meaning in the information they are discovering. The document also stressed the need to articulate the kind of information required, and then use this information ethically. According to the Association of College Research Libraries (2016), the way individuals evaluate information for credibility and authority is essential. The framework also delves into developing a self-awareness of how individuals can use credible, authoritative information in an ethical manner, applying it to their profession (American Library Association, n.d.).

Some librarians are now engaged in research into conspiracy theories and how to fight information illiteracy. "We plan to conduct a study into the information behaviors of Q-Anon adherents to discover how they conceptualize and practice their notion of research and information-seeking" (Beene & Greer, 2020, p. 6).

Summary

Chapter 2 summarized literature and concepts related to information literacy including disinformation, misinformation, fake news, conspiracy theories, information

illiteracy, and confirmation bias. The history of conspiracy theories and disinformation was reviewed. Actions to counter conspiracy theories, information illiteracy, disinformation, and misinformation were described. A definition of IL was provided followed by an historical overview of IL efforts. Information literacy in higher education and the content of IL courses was described. Finally, an overview of librarians' involvement in IL higher education classes was discussed. Chapter 3 explains the methods used to conduct the study. The research design, setting, sampling procedures, instrument, data collection procedures, data analysis and synthesis, reliability and trustworthiness, researcher's role, and limitations are described in Chapter 3.

Chapter 3

Methods

While conducting this qualitative phenomenological study, the researcher investigated the perceptions of instructors of information literacy (IL) classes at 10 private universities in Kansas. Four purposes guided this study. The first purpose was to determine what IL course instructors perceived to be the purposes of the IL courses. The second purpose was to investigate the IL course instructors' perceptions about the instructional methods they think are useful in teaching IL classes. The third purpose was to explore what the IL course instructors perceived to be the facilitators and barriers related to teaching IL classes. The fourth purpose was to examine what the IL course instructors perceived are positive and negative outcomes they have observed in students who completed IL classes. Chapter 3 describes the methods used in this study, including a description of the research design, setting, sampling procedures, instrument, data collection procedures, data analysis and synthesis, reliability and trustworthiness, the researcher's role, and the limitations of the study.

Research Design

A qualitative phenomenological research design was used in the current study. Qualitative research can involve the use of a naturalistic approach and a social constructivist paradigm that allows the participants to explain and interpret their own experiences (Rubin & Rubin, 2012). Creswell (2014) noted this type of design is rooted in philosophy and psychology, and provides a number of individuals' perceptions about and interpretations of the same phenomenon. By using a qualitative constructivist approach, the researcher asked broad, open-ended questions in order to gain as much

insight and as many complex views as possible. Participants' experiences were subjective, allowing them to *construct* their own interpretation and meaning (Creswell, 2014). In the current study, the phenomenon that the participants shared was teaching IL classes at private higher education institutions in Kansas. This design allowed the instructors to come to their own conclusions, explaining and interpreting their experiences in their own words. The current study allowed the researcher to gain a depth and breadth of knowledge from the lived experiences and points-of-view of the participants.

Setting

The setting for the current study included 9 private institutions of higher education in Kansas. All of the institutions in the current study were part of the same consortium of independent colleges in the state, the Kansas Independent College Association (KICA). According to KICA (2021), all of the consortium institutions emphasize the liberal arts.

Sampling Procedures

Criterion sampling was used to identify the participants for the current study. According to Lunenburg and Irby (2008), criterion sampling occurs when participants' characteristics meet the specified criteria. The first criterion for the study required participants to be employed at a private four-year higher education institution that belonged to the KICA consortium. A second criterion required participants to have taught an IL class between the fall of 2019 and the spring of 2022. A reference librarian from one of the consortium institutions was contacted to provide assistance in identifying instructors of IL courses at the KICA higher education institutions.

Instrument

According to Creswell (2014), qualitative interviews involve generally open-ended questions to elicit views and opinions from the participants. The interview protocol for this study included seven descriptive and demographic questions, and 10 open-ended interview questions related to the research questions that allowed the participants to freely share the perceptions of their experiences. Protocol questions were developed based on the literature and suggestions from topic experts.

The following are the descriptive and demographic questions:

IQ1. Which of the following best describes where you grew up:

a. Small Town (under 10,000)

b. Big City (over 100,000)

c. In-between (between 10,000 & 100,000)

I*Q2*. In what state did you grow up?

IQ3. What racial or ethnic group do you identify with?

a. Black/African American

b. White

c. Hispanic or Latino

d. Asian

e. Native American/American Indian

f. Mixed or Other

IQ4. Gender identity (select all that apply)

a. Female

b. Male

c. Transgender

d. Non-binary/non-conforming

e. Prefer not to respond

IQ5. Which of the following age groups do you belong to?

a. Age 22-34

b. Age 35-50

c. Age 51-65

d. Over age 65

IQ6. Does the educational institution that you work for categorize you as part-time or full-time?

IQ7. What is the total number of IL classes you have taught in your academic career?

The interview protocol also included 10 semi-structured interview questions aligned with the research questions.

RQ1. What are the perceptions of instructors of information literacy courses about the purposes of the course?

IQ8. What is the purpose of the information literacy course/courses that you teach?

IQ9. What goals and student learning outcomes do you include on your information literacy class syllabus?

RQ2. What are the perceptions of instructors of information literacy courses about methods that are useful in information literacy classes?

IQ10. What have you found to be some of the most effective teaching methods or strategies that you have used in your information literacy classes?

IQ11. What is your preferred method of teaching an information literacy class?

IQ12. Are there particular activities, assignments, or readings that you deem useful and effective when teaching information literacy classes?

RQ3. What are the perceptions of IL course instructors about the facilitators and the barriers of teaching IL classes?

IQ13. What resources or supports have helped facilitate teaching an IL course?

IQ14. What are the biggest challenges or obstacles you have experienced related to teaching an information literacy class?

RQ4. What are the perceptions of instructors of information literacy courses about positive or negative outcomes they have observed in students as a result of their completion of an information literacy class?

IQ15. What are some of the positive outcomes that you have observed in students who have completed an information literacy class?

IQ16. What are some of the negative outcomes that you have observed in students who have completed an information literacy class?

IQ17. What else would you like to add about teaching IL courses?

Data Collection Procedures

Before collecting data, the researcher submitted a request to conduct the study to the Baker University Institutional Review Board (IRB) on January 28, 2022. Approval to conduct the study was received from Baker's IRB on February 7, 2022 (see Appendix A). Once approval to conduct the study was received, the researcher contacted the Director of

Libraries at one of the KICA institutions seeking assistance in identifying librarians who teach IL courses at KICA institutions. Once contact information was obtained for librarians who met criteria for participating in the study was received, the researcher sent each individual an email inviting participation in the study (see Appendix B). The email included an overview of the research topic, the amount of time participation would require and a statement indicating participation was voluntary and that there would be no risks, discomfort, or compensation. The invitation indicated that participants could withdraw from the study at any time and choose to not respond to any of the interview questions. Invitees were informed that an anonymous code (e.g. Participant 1, Participant 2, etc.) would be assigned to their interview transcript and recording and used when reporting results of the data analysis to preserve anonymity and confidentiality. The invitation to participate indicated that the Zoom interview session would be recorded and the researcher would be taking notes throughout the interview. Potential participants were informed that after completion of the interview, a transcript would be provided to them to review for accuracy. The initial invitation to participate (see Appendix B) and a follow-up inquiry resulted in the identification of fewer than 10 study participants. Additional contact information for potential participants was provided by a Director of Libraries at a second KICA institution and other librarians and instructors with whom the researcher had networked with previously. The ten individuals who responded affirmatively about participating in the study were sent a follow-up email to schedule a Zoom interview at a time that was convenient for them, and were asked to sign and return a consent form (see Appendix C). The consent form included the same information that was included in the invitation to participate (see Appendix B).

Prior to conducting interviews with participants, the researcher asked two external peer examiners to review the interview questions for clarity and alignment with the research questions. Both external examiners were familiar with qualitative research and had conducted qualitative research studies. In addition, a peer of the researcher participated in a mock interview and provided feedback about the interview process, the pacing of questions, and the use of follow-up questions as appropriate. Prior to asking the interview questions, the researcher engaged in a brief, casual, conversation with each participant to establish rapport and to make each participant more comfortable.

According to Creswell (2014), qualitative interviews should "involve unstructured and generally open-ended questions intended to elicit views and opinions from researchers" (p. 190). Interview questions were designed to encourage participants to talk freely about the subject, rather than simply having to choose an answer from a list of possibilities, such as a list of multiple choices, an option of yes or no, or some type of range such as a Likert Scale. As Lunenburg and Irby (2008) prescribed, follow-up questions were developed on the fly "as the interview progressed based on individual responses" (p. 192).

Each interview lasted approximately 45 minutes. At the conclusion of the interview, the researcher gave sincere thanks to each participant for their participation, and reminded them that a transcript of the interview would be emailed to them for review and any corrections. To preserve confidentiality and anonymity, each Zoom interview recording and transcript was labeled with an anonymous code (e.g. Participant 1, Participant 2, etc.). This code was also used when reporting the results of the data analysis.

Data Analysis and Synthesis

Bloomberg and Volpe (2012) recommended a five-step approach for the analysis and synthesis of qualitative data.

1. Organize and prepare the data,
2. Read and review the data to determine the overall meaning,
3. Code the data,
4. Identify themes,
5. Develop a narrative to convey the findings of the data analysis.

This data analysis approach allows readers of the study as well as other researchers to easily see the roadmap for the study, offering a broad overview of how completing one step leads to the next one. The five-steps provide a clear and organized process that allows the researcher to explain how data were organized for analysis and the analytic process (Bloomberg & Volpe, 2012). According to Bloomberg and Volpe (2012) the five-step approach allows the researcher to "identify significant patterns and construct a framework for communicating the essence of what the data revealed given the purpose of the study" (p.110).

To implement the first step of the data analysis, the researcher compared the Zoom audio-captioned transcript of the interview to what was stated in each recorded Zoom interview several times. Participants were emailed their transcripts to verify the accuracy of the interview. Creswell (2014) referred to this process where participants verify the accuracy of interview transcripts as member-checking. Once the transcripts were reviewed by the participants and returned, the researcher noted each participant's

nonverbal communication (e.g. sighs, laughter, etc.) and body language in the margin of the transcript.

To implement the second data analysis step, the researcher read each transcript multiple times to gain an understanding of the overall meaning of the data. This enabled the researcher to become immersed in the data. The third step, coding, was accomplished by highlighting common words and phrases that occurred on each transcript using a blue text color highlight. Words or phrases that were uncommon across transcripts but which were important were text-highlighted in pink (Bloomberg & Volpe 2012). Words and phrases that were identified through coding across multiple transcripts were identified as themes, the fourth step in Bloomberg and Volpe's (2012) data analysis process. The themes were described with a phrase or sentence. According to Creswell (2014), the best way to interpret the wealth of information obtained during interviews in a qualitative study is simply to step back and ask yourself what were the main things that you have learned from these interviews. Identifying the themes allowed the researcher to develop a holistic idea of the participants' experiences.

The same two individuals who served as external reviewers of the interview protocol were asked to review the data analysis process and identification of themes. Both external reviewers concurred with the data analysis and themes identified. The final step in the data analysis was accomplished by developing a narrative to convey a summary of the data analysis. All recordings, transcripts, and analysis forms were kept in an encrypted, secure file accessible only to the researcher. The file will be deleted five years after completion of the study.

Reliability and Trustworthiness

Creswell (2014) stated that "qualitative validity means that the researcher checks for the accuracy of the findings by employing certain procedures, while qualitative reliability indicates that the researcher's approach is consistent across different researchers and different projects" (p. 201). With a qualitative approach, the participants themselves provide the rich, detailed, descriptions of their own experiences, helping to establish the credibility of the study. To further ensure the trustworthiness, accuracy, and credibility of the study, the researcher, participants, and peer reviewers must all agree that the study was conducted properly (Creswell, 2014). Several actions were employed to insure the reliability and trustworthiness of the current study. Prior to conducting interviews with the participants, a review of the interview protocol was conducted by two external examiners. No changes were made in the interview protocol. Member checking engaged participants in reviewing interview transcripts for accuracy. A mock interview was conducted to provide the researcher with feedback about the interview process, the pacing of questions, and the use of follow-up questions. The two external examiners who reviewed the interview protocol also conducted a review of the researcher's data analysis and theme identification.

Researcher’s Role

The researcher's role is critical in qualitative research. Creswell (2014) stated that in qualitative research, the researcher must acknowledge potential biases, prejudices, and past experiences that could impact the researcher's ability to be objective throughout the study. The researcher has taught a class with a major focus on IL and critical thinking for approximately 10 years, and is well-versed in methods for identifying disinformation,

misinformation, fake news, and conspiracy theories. The researcher had never taught at any of the institutions that the participants in this study were chosen from, nor had he met any of the participants prior to the study. The study focused entirely on participants' experiences teaching IL classes at 10 private institutions in the Midwest that did not necessarily relate to the researcher's own experiences. Creswell (2014) stated objectivity, honesty, and integrity are essential to all research, with any personal biases identified prior to conducting the study. While conducting the study, the researcher used reflexivity, which is a form of self-reflection, in order to avoid introducing bias into the analysis and interpretation of the data received (Creswell, 2014).

Limitations

According to Lunenburg and Irby (2008), "Limitations are factors that may have an effect on the interpretation of the findings" (p. 133). All of the participants taught at a private college in the Midwest. The perceptions of IL instructors in the current study may differ from the perceptions of faculty who teach IL courses at institutions located in non-Midwest geographic locations in the U.S. All of the participants in the current study were teaching at four-year private higher education institutions. Perceptions of faculty teaching IL courses at public institutions in the Midwest or other geographic locations may differ from the perceptions of current study participants. Respondents in the current study all taught at four-year higher educational institutions. Faculty members who teach IL courses at community colleges or other non-four-year higher education institutions may have different perceptions about IL courses than faculty who teach at four-year institutions. Some of the fake news and conspiracy theories discussed in the IL classes may be regarding hot-button, divisive issues. It is possible that instructors of IL classes

might have personal biases regarding these issues that might have affected their perceptions of the IL classes.

Summary

Chapter 3 described the qualitative research methods utilized in the current study. This chapter included the research design, setting, sampling procedures, data analysis and synthesis, reliability and trustworthiness, researcher's role, and limitations of the study. Chapter 4 explains the results of the qualitative data analysis.

Chapter 4

Results

The purpose of this study was to examine the perceptions and experiences of instructors of IL classes. Ten IL instructors from private institutions of higher education in the state of Kansas participated in the study. Chapter 4 includes a summary of the demographic and descriptive characteristics of the participants and the results of the data analysis.

Participants' Descriptive and Demographic Information

All 10 participants were employed at a Kansas Independent College Association (KICA) institution. Nine of the participants were librarians and one was a general education instructor who was not a librarian. Two of the librarians who participated in the study were also English instructors. Eight female IL instructors and two male IL instructors participated in the study. Nine identified as White or Caucasian and one identified as mixed race. Nine were classified as full-time, and one was classified as part-time. Four participants were from a small town (less than 10,000 people), two were from a medium-sized town (between 10,000 and 100,000 people), and four were from a big city (over 100,000 people). Five were from the Midwest (Iowa, Kansas, Missouri, Nebraska), and five were not. Two participants were in the age-group of 22-34. Four were in the age-group of 35-50. Three were in the age-group of 51-65, and one was in the age-group of over 65. One instructor teaches only eight-week, 3 credit hour IL classes, and is also available to work one-on-one with students who are struggling academically. Three instructors only teach one-shot IL sessions. Six instructors have taught both brief introductory sessions and entire courses, while others collaborated,

coordinated, or even team-taught classes with an English instructor, or a General Education Director. Some IL instructors collaborated with a number of different disciplines to thread an IL component throughout the entire curriculum. For many participants it was difficult to determine exactly how many courses they had taught, especially instructors teaching short IL sessions. Participant 4 reported teaching about 40 sessions each semester for eight years. Most participants reported how many years they had taught IL but were only able to give a rough approximation of how many classes they had taught. Participant 8 reported that this was her first year teaching IL and that she had only completed one full-semester class. However, Participant 2 reported teaching IL for over 25 years, and Participant 3 reported 30 years in bibliographic research. The descriptive information about study respondents represents the wide range of IL teaching experience that the participants had as well as the various formats of IL teaching that different institutions utilize.

The following section summarizes the results of the data analysis. Five themes were identified by analyzing the data: perceptions of IL instructors about the purposes of IL courses, perceptions of IL instructors about useful teaching methods in IL classes, perceptions of IL instructors about the facilitators and of teaching IL classes, perceptions of IL instructors about barriers to teaching IL courses, and perceptions of IL instructors about positive or negative outcomes they have observed in students who have completed IL classes. Thirteen subthemes are identified and explained in the following summaries related to each theme. Table 1 provides an overview of each theme, the subthemes within the theme, and number of participants who mentioned the subtheme during the interviews.

Table 1

Themes and Subthemes Identified in the Interviews with10 Participants

Themes	Subthemes
Perceptions of IL Instructors about the Purposes of IL Courses (10)	Teaching the ACRL framework (9) Critical thinking and reading laterally (6) Challenging assumptions and debunking disinformation and misinformation (6)
Perceptions of IL Instructors About Useful Teaching Methods in IL Courses (10)	Interactive, hands-on learning activities (8) Games & competitions (5)
Perceptions of IL Instructors About Facilitators Related to Teaching IL Courses (10)	Group work (6) Technology (6)
Perceptions of IL Instructors About the Barriers Related to Teaching IL Courses (10)	One-shot sessions (7) Unsupportive classroom teachers or conflict with faculty (5) Technology (7) Close mindedness of students and confirmation bias (6)
Perceptions of IL Instructors About Positive and Negative Outcomes Observed in Students who Have Completed an IL Course (10)	Positive: Student gratitude & increased confidence (6) No negative outcomes (5)

Note: Number of respondents is indicated in parentheses.

Perceptions of IL Instructors about the Purposes of IL Courses

All participants described what they perceived are the purposes of an IL class. Three subthemes were identified from the data analysis: teaching the Association of College and Research Library (ACRL) framework, critical thinking and reading laterally, and challenging assumptions and debunking disinformation and misinformation. Each of the subthemes is explained in the next sections.

Teaching the ACRL framework. Nine of the study participants were librarians, and the participants reported that making sure students learned and utilized the ACRL guidelines was one of the main purposes of IL classes. Participant 7 stated the purpose of the class is to teach students how to use the databases in the library, develop different search strategies depending on what their topic is, and utilize peer-reviewed journals and other resources. "I also teach them the *value* of that information and the different considerations of the type of source they're using so they can evaluate the information and effectively start a scholarly conversation in a responsible, ethical manner" (Participant 7). This participant added, "My goals and SLOs are very loosely based on ACRL guidelines. I also stress the importance of avoiding plagiarism and making proper APA or Vancouver-style citations." Participant 4 teaches both one-shot sessions, and also a full course in IL and reported viewing the one-shot sessions as directional teaching so that students can access and use resources for the formal course. "The course that I designed is centered on the frameworks for IL, and so it's intended to introduce students to those six different frameworks" (Participant 4).

Participant 3 stated she saw the purpose of IL classes as "a collection management tool to ensure that students have the resources they need to be successful in their

academic career and that they know how and where to find those resources." Besides knowing how and where to find the sources they need to know "how to use them and how to cite them properly" (Participant 3). Participant 5 elaborated that the concept of the ACRL guidelines is to "Really help students evaluate the information they come across. How can they narrow it down? Handling the overload."

Participant 9 stressed how the purpose of IL classes goes far beyond understanding the information cycle, and learning how to access, evaluate and organize information for the research process. This respondent teaches IL concepts throughout the whole process and emphasizes "the transferability of what they [students] are learning to their entire lives." Participant 9 described teaching students the research process from topic development to completing the final draft of an academic research paper.

Critical thinking and reading laterally. Six participants mentioned critical thinking as one of the most important parts of IL. Participant 5 stated that teaching evaluative, thorough, complex thinking allows students to think for themselves. This respondent also explained the concept of *reading laterally* which means reading about a subject from several different sources and verifying or fact-checking as you go:

> I teach reading laterally. Just opening up another page and putting in the author's name and what do you get? 'Oh that can't be right. I mean it says he's biased, you know?' It's like yeah, I know. He doesn't have any credibility.

Participant 9 echoed the same sentiment and stated one of the main purposes of IL classes "is be making sure students know how to evaluate information and think about it critically in terms of credibility and relevance." Participant 8 stated that students must be able to think critically in order to find authoritative, unbiased sources for their research,

and avoid fake news and disinformation. “If they can't differentiate between legitimate sources of information and sources that are illegitimate, questionable, or really slanted, then they won't be able to do solid research. Some sources misrepresent the facts and cherry-pick their information.” Participant 8 also added that students need to read a lot of different reputable sources to get a balanced idea of their subject matter. Participant 6 reported that the textbook she uses in her IL class has an entire chapter on critical thinking and errors in logic. She indicated these errors in logic can help students recognize and avoid them. She stated that this is not just important for making it through college, but that it is important for lifelong learning.

Challenging assumptions and debunking disinformation and misinformation.

Six participants mentioned the importance of getting students to recognize their own confirmation biases, challenging their assumptions and teaching students to recognize non-credible sources. Participant 5 discussed the value of challenging personal assumptions and learning how to evaluate issues from different points-of-view. This respondent also stressed the importance of being able to “talk from either side." Participant 5 indicated that just because a student supports one side of an issue does not mean that is the position he or she will have to take in class. "Because they talk, they kind of listen to one another. They're like 'Oh, I didn't think about that.” Participant 5 also stressed the importance of using credible, authoritative sources. Just because someone is an expert in one area does not mean this person is knowledgeable in other areas. Participant 5 elaborated that somebody with a Ph.D. in psychology does not necessarily know anything about infectious diseases or climate science or meteorology. Participant 4, regarding both students *and* their classroom teachers stated, "So you're restricted by

their own ideas and prejudices; the student always reflects that." Participant 9 elaborated on why challenging and debunking disinformation is more crucial now than ever:

> It is imperative to make sure that students know how to evaluate information and think about it critically in terms of credibility and relevance - especially with social media. It's important for them to be able to evaluate sources given the prevalence of information.

Participant 9 also spoke about the value of having a multicultural background when teaching IL to a diverse group of people:

> Living in the Czech Republic for three years in childhood was wonderful and very formative to the rest of my life being in another culture. Having an appreciation for others' points-of-view, as well as understanding cultural differences enhances your critical thinking and your IL in general.

Participant 8 stated one of the purposes of her IL sessions was "debunking disinformation and teaching students how to find authoritative sources and give proper attribution."

Perceptions of IL Instructors About Useful Teaching Methods in IL Courses

All participants described useful teaching methods for IL class instruction. Two subthemes were identified from the data analysis: interactive, hands-on learning activities and games and competitions. Each of the subthemes is explained in the next sections.

Interactive, hands-on learning activities. Eight of the interview participants reported interactive, hands-on learning to be the most effective way to get the students involved in IL classes. Participant 4 stated: "Hands-on activities keep them [students] focused. When they're involved in the process it keeps them focused."

Games and competitions. Five participants indicated games and competitions were useful in keeping students focused and engaged in IL classes. Three participants use *Kahoot!*, the game-based, online learning platform in their classes, and stated it was one of their favorite tools. Participant 3 reported using lots of gimmicks in her classes to keep the students awake. "Anything gimmicky," she said "Using buzzers like a quiz-show or a nerf-ball so one student has to pass it on to the next one." Participant 3 also stated students seem to be even more engaged when she turns the classroom activity into a competition:

> So I'll have little battery operated buzzers sitting at mainly I have round tables and yeah, they buzz in if they know the answer and then, you know, whoever gets the most, whichever table gets the most points wins. Sometimes I will bring in a box of a dozen doughnuts, you know, and I'll say whichever side, whichever team, whichever table comes in first gets the doughnuts.

Participant 3 added food is a good motivator. She also described another technique that is effective at keeping students engaged:

> Sometimes I'll take a Nerf ball and I'll throw it at someone and I'll say 'paraphrase what I just said, or tell me in your own words how you might do that.' And then when they're done, I will say, you know, now throw the ball to someone else and give them a similar question. And some students like that and some don't, but I've found it gets the most effective results because they're having to respond, repeat....

Participant 4 related how she turned her IL instruction into an innovative game, after the college's bookstore closed:

> I was allowed to take leftover equipment displays and found this rack that looks like an alien spaceship. It has four shelves on it and they all spin independently of each other. When you push it, it just all spins around. It's crazy. I had that in a spare space and I just kept going back and looking at it like how I can figure out something I could do with this rack to make it fun. And so I got all these plastic jars and thank goodness I got plastic jars because when I wheeled it to a classroom to use, they all flew off the cart. But each jar had a different topic.

Once the students chose their jar with the topic within, Participant 4 worked with each student to develop research questions, search terms, and a strategy to determine the best database to find the pertinent information. "They were so engaged in the process," Participant 4 said. After the students finished their research projects Participant 4 used a similar process to engage the students in the assessment process:

> And then I did an assessment activity at the end. I laminated little pieces of paper and they had a dice and just had to answer whatever question the dice landed on. For example, if they rolled a four, they had to answer, 'What will you take away with you today?' or 'Tell something new you learned'. It was really nice to do that assessment with them, but then also to hear their responses. Just the different things they picked up on. It was a little surprising to me because it wasn't necessarily what I thought the main concept was, but of course every student learns in a different way.

Participant 6 discussed a game called *Perplex Your Peers*, which is a variation of a similar game called *Stump the Students*. Depending on the size of the class, its members are broken down into several groups (usually two to four). The members of the group

work together to formulate questions based on assigned readings and lecture material. The questions are supposed to be *tough but fair*, and the students are told ahead of time that these questions might end up on a test. The instructor is the referee and will disqualify any unclear or ridiculous questions such as "What page number is such and such on?" Straws are drawn to determine which group *pitches* or asks questions first. If the *receiving* or responding team fails to answer correctly, then the first team gets 10 points, and gets to ask another question. If the responding team gets the answer correct, then the responding team gets the points and gets to ask the next question. The first team to score 100 points wins the game, and even gets extra credit on the subsequent test. Instead of extra credit points, other participants reported other prizes, such as treats or a cheap trophy.

Perceptions of IL Instructors About Facilitators Related to Teaching IL Courses

All participants described what they perceived are facilitators of teaching IL courses. Two subthemes were identified from the data analysis for this theme: group work and technology. This section includes an explanation for each of the identified subthemes.

Group work. Six participants specified that group work was a facilitator for teaching IL. Participant 9 stated that experiential learning teaching methods and strategies seem to be the most effective:

> I do a lot of group work, like the 'think pair share model'. I don't know if you're familiar with that where students evaluate a source
> on their own, then they partner with a peer to discuss that source,
> and then we share as a class. That teaching strategy engages

> students who have a variety of learning styles and lets students move around more.

Technology. All 10 interview participants discussed technology and had strong feelings about it one way or another. Six participants listed technology as a facilitator that is beneficial for teaching IL. It is worth noting that three of these six respondents also mentioned that technology could be a problem. In general, participants felt that online databases and even the Internet was a huge plus for IL, but the prevalence of fake news proliferating on social media was also a reoccurring theme. Participant 1 discussed how technology can be a great substitute for additional teachers, and a solution for understaffing:

> Something that we've tried recently that's helped our small staff a lot has been doing the demo stuff virtually through Zoom, and then having in-class research days with the librarian and the instructor there at the same time. So now we can go in and actually work one-on-one with the students for their class period on that research day, and that's actually worked pretty well. I can teach 100 students at a time, and do the session three times versus teaching it thirteen times and not having as much interaction with the students because of that. So I think those two things in particular have worked well.

Participant 7 also praised technology as one of the most effective methods to reach the students. "I do a lot of videos. Both with Power Point and with demonstrating online, and students respond very well. Actually, the last class I just finished many students were thanking me for the videos that I have." Participant 7 added that the *beautiful*

ornate library behind her was really just computer graphic imaging (CGI), with her in front of a green screen so it wouldn't look like she was "speaking from a prison cell" because of the stark, grey concrete walls. She stated she only teaches online and although it can be a little harder to reach certain students, she still loves it. She also praised technological advances like online plagiarism checkers, stating they're invaluable for teachers.

Participant 8 stated her preference for conducting IL sessions is in-person. However, she said it has to be "In-person, in front of an AV [audio visual] set up - one that works!"

Participant 10 spoke of her "famous plagiarism sessions," where she uses videos of people lip-synching singers, or actors with other languages dubbed in as an analogy for plagiarists. She stated this method seems to really bring home the point to the students. "They really seem to get it," she said.

Flipped instruction involves having students complete readings, tutorials, assignments, or quizzes related to a topic prior to coming to class. Class sessions focus on expanding knowledge gained through the pre-class activities. Two participants praised the flipped instruction model, with the caveat that it will only work if students follow-through with what they are supposed to do *before* coming to class. Participant 1 described it this way:

> One thing that I really liked doing was having the students watch a tutorial or they take the quiz and then they come to class. I felt that the students who actually followed through with that process learned more and it was more ingrained in them than the others.

Participant 4 added that the flipped model is essential for one-shot instruction because time is so limited.

Perceptions of IL Instructors About the Barriers Related to Teaching IL Courses

All participants described what they perceived as barriers related to teaching IL. Four subthemes were identified from the data analysis for this theme: one-shot sessions, unsupportive classroom teachers or conflict with classroom faculty, technology, and closemindedness of students. The next sections explain the identified subthemes.

One-shot sessions. Seven of the interview participants declared the one-shot sessions were relatively ineffective for most students, stating they needed more time to work with them. Participant 7 reported that the math instructor brings his class down to the library for an hour-long IL session, but emphasized that it was not nearly enough and that students barely get their feet wet. According to Participant 7, "It [IL] needs to be threaded throughout the curriculum!" Participant 2 has taught IL for over 25 years at various institutions and always incorporates IL as a major part of her English classes. Her preferred method of teaching is to focus for four weeks on teaching IL concepts and basics so students can find authoritative information, retrieve the information, read and understand the information, evaluate the information, and synthesize the information. The second four weeks of class are spent actually utilizing the research and writing a paper with careful attributions and APA-style citations. "One-shots do not work!" Participant 2 added. Participant 9 reiterated the preference for a longer, more integrated approach. "Just a pedagogical strategy for online courses, there's a combination of doing research and integrating that research into a writing project. It's kind of the big overall

project learning." Participant 10 stated that being limited to one-shot sessions was a major barrier:

> We don't have a credit-bearing Info Literature class. All I have are one-shot sessions and they're almost never tied to an assignment, so I can't tell if what I'm teaching them actually ends up helping them or not, because there's no assignment generally. It's harder on my end to assess the effectiveness of what I'm doing.

Participant 1 expressed the same sentiment about not having any follow-up or even a class evaluation to assess if the sessions were beneficial or not.

Unsupportive classroom teachers or conflict with faculty. Often librarians teaching IL have to coordinate their efforts with a regular classroom teacher. Five participants reported having to work with a faculty member who was either uninterested or unsupportive of their efforts. Two participants said faculty members had a condescending attitude toward them or tried to micromanage how they taught IL. Participant 4 stated, "Classroom teachers are one of the biggest obstacles, their attitudes can be non-cooperative or restrictive." Participant 1 indicated everything relies on the classroom instructor. "I think it depends on how much the instructor shows they value Information Literacy." Participant 1 and Participant 4 both emphasized that if there is not buy-in from the classroom instructor, there will not be buy-in from the students. Participant 1 also spoke of an imbalance in the power-differential between the librarian and faculty member, where the faculty member exhibits a condescending attitude toward the librarian, letting him or her know that they are not on equal standing. While holding

one hand substantially higher than the other, participant 1 stated "It's coming from a faculty to a librarian perspective, which is kind of interesting."

Participant 10 reported a similar example about classroom teachers she collaborated with, but framed it differently:

> None of them (faculty) know what a librarian actually does, so they don't know what my skills are. If they don't recognize that you have these skills that are probably better than their skills in that area, they see no reason to invite you in. So creating those relationships with faculty and helping them understand what you can do without being condescending to them can be a barrier. They have a lot of very fragile egos a lot of the time.

Technology. Six participants reported technology as a facilitator, but three of the six who felt technology was beneficial also said it was sometimes a problem when the system goes down, or because students believe the garbage they read on Facebook or dubious Internet sites. Four other participants reported that technology was strictly a barrier or obstacle in their view. Participant 3 acknowledged that technology was a major barrier:

> My own lack of interest in technology coupled with constant changes in the technology has been a significant obstacle or barrier to me. I love my career, I love my profession, but I think if I had known that it was gonna be so computer-oriented, so technology-oriented, I might have chosen something else, because it's not a particular passion of mine. Just being honest, I don't want to go home and figure out how I'm looking for the latest library app.

Participant 4 reported similar challenges. "I have really struggled with the online instruction, especially Zoom, where you get all the blacked-out squares and nobody interacts with you! It's much harder to engage with them [students]." Participant 7 also stated that technology was often a challenge. However, the challenge was a problem for certain students, not the instructor. "So the program's all online and I had a student start, and he never got anywhere, and then he finally said 'I don't have a computer,' so sometimes technology is a problem!" Participant 8 complained that the university she works for needs a serious upgrade in technology. "Our IT guys are helpful and they do what they can, but they need some serious help." Noting that the students are not always on campus, Participant 8 stated that the website is poorly designed. "Students cannot even find the library on our website much less figure out how to access the databases". Participant 8 declared, “There should be a link to the library right on our front page!"

Closemindedness of students and confirmation bias. Six of the 10 participants described how closemindedness of students and confirmation bias (only listening to information that confirms what you already believe while ignoring anything to the contrary) is a major problem negatively affecting instruction in IL classes. Participant 1 identified "Students who think they already know everything," as a major problem. Participant 5 stated a real barrier to being information literate is not being willing to listen to points of view outside of your own beliefs. "I don't want to say the closemindedness of the students, but you know, they will only accept things that are in their belief system. Everything is 'Well that's fake news'.” Participant 8 also described students who think they already know all the answers, and how difficult it is to debunk their disinformation. "Some students don't believe the information from peer-reviewed scientific journals, or

legitimate sources of information. They'll be like 'but that's a hoax, Tucker Carlson said...'" Participant 7 stated the college has a lot of students who are military and other adult learners, noting "It is not just the young students right out of high school who come in with know-it-all attitudes. Sometimes the adult learners are just as closeminded. "That can be a struggle from the first day of class." Participant 7 and other participants also indicated that some students believe they can find anything they need from a quick Google search. All other tools are unnecessary. Participant 6 also noted closedmindedness as a major impediment to learning IL and critical thinking skills. "I talked about the sources. That's where I brought in biases too. If you're on social media, it's like that confirmation bias, where you'll only pay attention to information that you already agree with and ignore any contrary information."

Participant 1 stated the following:

> I think that a lot of the students think that they know everything already; like even if it's just an age thing they think that they know it all! Like one student emailed the reference desk and said 'Your website is trash, and I can't even find any resources that I'm needing on my topic. Please help me!' And I'm thinking that's not the way you want to open your email when you're asking for assistance (laughter). But he was serious, he was literally saying how horrible the website was, and what the problem was that the student wasn't spelling the name of the person that they were researching correctly.

Three out of 10 participants mentioned constant budget cuts and dwindling resources, often forcing one person to do two people's jobs. Participant 3 listed finances as one of the biggest barriers to teaching IL at their institution.

> Definitely financial resources always have an impact on what you can provide for your students. I used to have three staff members, now I have none due to budget cuts. When I first came here in 2013, my operations budget was $120,000, and now almost nine years later it's $20,000 less.

Participant 10 reported that "The university hasn't given me any financial resources, but we're resourceful at coming up with our own resources!"

Perceptions of IL Instructors About Positive and Negative Outcomes Observed in Students Who Have Completed an IL Course

All participants described positive outcomes observed in students who have completed IL course instruction. One subtheme, student gratitude and increased confidence, was mentioned by six study participants as a positive outcome in students who had completed an IL class. Five participants indicated they had not observed any negative outcomes in students who had completed an IL class. The student gratitude and increased confidence subtheme is explained in the next section.

Student gratitude and increased confidence. Six out of 10 participants identified student-gratitude as a positive outcome from students who have finished IL classes. This positive feedback is sometimes received from students who make a point to thank them in person. Other times the positive feedback comes from student evaluations at the end of class.

Participant 9 stated:

> I can answer this question both from my own observations, but also from course evaluations and final journals that students complete. So a lot of them identify for themselves that by the end of the course, they've learned skills that they didn't

> know previously. So some practical skills such as using our research databases effectively as well as developing a thesis statement using citations. But a lot of them don't just focus on the practical skill sets, but also have talked about in those final reflections, how their feelings toward research have changed. That at the beginning of class they might have been more apprehensive toward the research or information literacy process. They might have just had less knowledge about it. And by the end they understand it better and they have more positive and definite feelings about what the process entails, which is part of the goal of the course. So hopefully, I hope that by...that after the course they might have different feelings when approaching other similar research projects whether personally or academically.

Participant 3 stated it really makes her feel good "when a student comes by and says, 'Oh that database we talked about in class today, oh my gosh I can use that in so many different ways.'" Participant 10 relayed similar feelings and experiences, "The most positive outcome is when a student comes to me after they finish a research project and say thanks for the information I gave them to get through it." Participant 5 mentioned one particular instance that stuck in her mind:

> One class I had, it was like my largest class and I had freshmen, sophomores, juniors.... I even had a senior. But the senior at the end of the class said, ‘Thank you so much! I'm ready for grad school’.”

Participant 1 reported how gratifying it was for him to hear a senior lab assistant telling sophomore IL students how important the information is:

> The lab assistant told the sophomores 'You need to pay attention to this because it helps you so much, and gets you through your course and your program.' So that was reassuring that a senior-level student telling sophomores 'Pay attention you guys!"

Five participants stated they could not think of any negative outcomes that they had observed after students completed IL classes. One participant reported it was very rare seeing any kind of negative outcomes from students completing IL classes and could not think of anything in particular.

Participant 2 reported plagiarism as a negative consequence that she had noticed in a handful of students. "After all the time I spent hammering home what plagiarism is and how to avoid it, I had three students in my class who plagiarized their final paper and failed the class." Three participants reported that occasionally there are students who feel like they don't need to be in an IL class, believing they can find anything they want by using a Google search. Three of these participants reiterated that one-shot IL sessions do not work, and certain students act like they are just wasting their time. Participant 6 reported that "At the end of the class I was really disappointed in some students' performance."

Summary

This chapter summarized the results of the data analysis of the interviews conducted with 10 instructors of IL classes at private institutions in Kansas. This chapter examined themes related to the perceptions of IL instructors about the purposes of IL courses, the perceptions of IL instructors about methods they found useful in teaching IL classes, the perceptions of IL instructors about the facilitators related to teaching IL

classes, perceptions of IL instructors about barriers related to teaching IL courses, and the perceptions of IL instructors about positive or negative outcomes they have observed in students who have completed IL classes. Chapter 5 includes a summary of the study, findings related to the literature, and conclusions.

Chapter 5

Interpretation and Recommendations

The current study investigated the perceptions of IL instructors at 10 private institutions of higher education in Kansas. Chapter 5 includes three major sections. The first section provides a study summary including an overview of the research, the purpose of the study, the research questions, a review of the methodology, and the major findings of the current study. The second section details how the major findings of the current study relate to the literature. The third section contains the conclusions of the study, including implications for action, recommendations for future research, and concluding remarks.

Study Summary

This section summarizes the study, including an overview of the problem, purpose statement, research questions, review of the methodology, and major findings.

Overview of the problem. According to Metz (2017, p. 6), "Evidence-based reasoning is under assault." Information illiteracy has spread to a catastrophic level, partially due to advances in technology and the popularity of social media as a conduit for spreading misinformation (Rubin, 2019). Forbes (2020) stated that IL promotes lifelong learning across the curriculum. In President George H. W. Bush's State of the Union address for 1990, the *National Goals for 2000* were announced and the American Literacy Act was signed into law (Robyns, 2001). According to Hassani and Nfissi (2015), traditional literacy just meant the ability to read and write. However, this definition is no longer adequate in the era of the Internet, social media, fake news and conspiracy theories (Hassani & Nfissi, 2015). Although the term *information literacy*

was coined in 1978 by Paul Zurkowski (Yevelson-Sharsher & Bronstein, 2018), IL is now crucial as educators work to stem the spread of misinformation and disinformation. Historians have traced anti-Semitic conspiracy theories back 200 years to the Battle of Waterloo (Rosenwald, 2018). However, the proliferation of Nationalist groups such as the Oath Keepers and the Proud Boys, and the resurgence of disinformation and conspiracy theories with racist and anti-Semitic themes being spread and repeated by Q-Anon adherents emphasize the seriousness of the problem (Chait, 2021). Beene and Greer (2020) stated that librarians are in the unique position to fight information illiteracy, conspiracy theories, and other misinformation because they have a wealth of material from all academic disciplines at their fingertips.

Purpose statement and research questions. Four purposes guided this study. The first purpose was to determine what IL course instructors perceived to be the purposes of IL courses. The second purpose was to investigate the IL course instructors' perceptions about the instructional methods they think are useful in teaching IL classes. The third purpose was to explore IL course instructors perceptions about facilitators and barriers related to teaching IL classes. The fourth purpose was to examine what the IL course instructors perceived are positive and negative outcomes they have observed in students who completed these classes. The following research questions were addressed in the current study:

RQ1: What are the perceptions of instructors of information literacy courses about the purposes of the course?

RQ2: What are the perceptions of instructors of information literacy courses about methods that are useful in information literacy classes?

RQ3: What are the perceptions of IL course instructors about the facilitators and the barriers of teaching IL classes?

RQ4: What are the perceptions of instructors of information literacy courses about positive or negative outcomes they have observed in students as a result of their completion of an information literacy class?

Review of the methodology. A qualitative phenomenological research design was used in the current study. Qualitative research can involve the use of a naturalistic approach and a social constructivist paradigm that allows the participants to essentially *construct* their own experiences and relay them to the researcher (Rubin & Rubin, 2012). The study participants interpreted and reported their own lived experiences to the researcher, allowing rich, detailed first-person descriptions about the perceptions of 10 IL instructors at small, private institutions of higher learning in Kansas. Bloomberg and Volpe's (2012) five steps of data analysis were followed to analyze the data. Two external reviewers examined the alignment of the interview questions with the research questions and reviewed the data analysis and theme identification. Member checking allowed the participants to verify the accuracy of the interview transcripts.

Major findings. Five themes were identified by analyzing the data:

1. perceptions of IL instructors about the purposes of IL courses,
2. perceptions of IL instructors about useful teaching methods in IL classes,
3. perceptions of IL instructors about facilitators related to teaching IL classes,
4. perceptions of IL instructors about barriers related to teaching IL classes,
5. perceptions of IL instructors about positive or negative outcomes IL observed in students who have completed an IL course.

Twelve subthemes related to the five themes were also identified.

All 10 participants described purposes of IL courses. All respondents considered IL crucial for all areas of education, and lifelong learning. There were three subthemes identifies within this major finding. Nine of the participants mentioned teaching the basic framework of the ACRL as one of the major purposes of the class. Teaching students where to find pertinent information, and how to access, retrieve, evaluate, and synthesize sources in order to prepare a cohesive body of work, such as a research paper, was one of the major goals of the study participants. This included teaching the students how to prepare proper citations. Six participants stated that helping students develop their critical thinking skills so that they can challenge assumptions and discount disinformation was one of the major goals of IL classes. These six respondents indicated that one way to develop critical thinking is by reading laterally--gathering information from multiple credible, authoritative sources to see if there are any discrepancies among the sources. Six respondents teach students to challenge assumptions and debunk disinformation and misinformation through looking for any flaws in logic and double-checking any information that has not been verified and/or seems implausible.

Eight study participants indicated that when teaching IL classes, hands-on and interactive activities facilitated instruction and kept students engaged, interested, and entertained. Commercially available resources like Kahoot! as well as activities like think-pair-share were mentioned as strategies to actively engage students. Five respondents indicated that using games and competitions were useful in keeping students engaged in IL classes. Examples of games and competitions included turning the class into a quiz-show, or some kind of competition where one team was competing with

another for accolades, a cheap trophy or badge, or even a substantive prize such as extra-credit points, or even a box of doughnuts.

All participants described facilitators related to teaching IL courses. Six participants indicated how group work that used teaching models like think-pair-share promoted student involvement in learning in IL classes. Six participants described how technology is a useful tool used in IL instruction. Online databases, the Internet, and videos were mentioned as examples of technology that facilitated instruction.

Study participants cited several barriers related to teaching IL classes. Seven respondents indicated that one-shot sessions are not a viable option for equipping students with IL knowledge and skills. None of the participants thought one-shots gave them enough time to thoroughly and adequately do their jobs, and seven of them stated one-shot sessions just do not work. One participant stated that if there is not buy-in from the classroom instructor there will not be buy-in from the students. Five participants described faculty who were not supportive of their efforts. Seven study respondents indicated that technology was a challenge. Constant changes in technology, lack of current technology hardware, and not possessing a strong knowledge base to provide instruction online or using Zoom were mentioned as specific elements of technology that posed problems for IL instructors. Four respondents indicated that technology could be a major detriment to certain students (especially in rural areas) who lacked access to the proper technology such as high-speed Internet. Another instructor stated that students just don't engage in online classes like they do in person, mentioning that for Zoom meetings they will sign in, but keep their camera off and rarely if ever respond. Six participants indicated that closemindedness of students was a barrier in teaching IL

courses. One participant mentioned that some students come to class with "a know-it-all attitude," or they think they can find any information they need from the first couple of sources that pop up in a quick Google search. Some of these students were also reported to have confirmation bias, where they would automatically tune out anything they did not think was true or did not agree with--and some would even get argumentative. One participant mentioned it is impossible to learn basic scientific principles if you do not believe in the theory of evolution, or vaccines, or climate change. Students are at a severe disadvantage to advance their critical thinking and IL skills if they think the Covid pandemic is a hoax because that's what they heard some guy on a podcast say. Three participants stated that shrinking budgets for libraries and dwindling resources was also a barrier or obstacle.

All participants described positive outcomes in students who had completed IL classes. Six of the 10 respondents indicated that students often express gratitude for what they have learned in an IL course either in person or on end of course evaluations. One participant noted that just having a student come up to her at the end of the course and thank her, saying he or she "now really gets it" makes it all worthwhile. Students mentioning how much they've learned on their student evaluations demonstrates the importance of IL. Half of the study participants indicated they had not observed any negative outcomes in students who had completed an IL course. Three participants indicated they had observed plagiarism and described students who felt they did not need to complete an IL course because they can find the information they need through a Google search.

Findings Related to the Literature

Tewell (2018) stated that the best way to handle the problem of confirmation bias and disinformation was to approach hot-button issues with caution. The respondents in his study were IL instructors who advised Tewell (2018) that controversial subjects should be addressed in a sensitive manner, with the instructor approaching slowly and asking meaningful questions of students, inviting them to do the critical thinking and evaluation and analysis of the information themselves. Participants in the current study also stated that critical thinking and learning to read laterally were some of the main purposes of IL.

According to Malloy (2018), competitive games and interactive group activities are beneficial for instructors of IL, leading to increased engagement and success among students. Findings in the current study were consistent with those reported by Malloy. Current study participants indicated that hands-on interactive class activities that actively engaged students were useful in teaching IL classes.

According to Rubin (2019), many people tend to stay within their own information-bubble. Bishop (2009) called this phenomenon "the homogenous unit principle" (p. 159), and noted that people are less likely to exchange ideas with those having diverse perspectives, and more likely to stick to one or two sources that merely reinforce the views that they already have. The current study supported the research of Rubin (2019) and Bishop (2009). Participants in the current study reported that the closedmindedness of students and confirmation bias were serious problems and major obstacles for IL instructors.

Tewell (2018) reported that the lack of time allotted to teach IL was insufficient--especially with the one-shot model. He stated that the one-shots are problematic because of the lack of time to really allow students to develop and utilize the concepts of IL. Tewell's research was supported by the current study with seven out of 10 participants reporting the one-shot model as a major obstacle or barrier to teaching IL. In the current study five participants reported difficulty in coordinating efforts with the classroom instructor, and two reported the instructor had a condescending attitude or little respect for what librarians did. These findings are consistent with Tewell (2018). According to Tewell, some librarians reported faculty members were reluctant to relinquish any of their control, expressing a power-differential over the librarians.

Conclusions

This study examined the perceptions of IL instructors at private institutions of higher education in Kansas about the purposes of IL classes, facilitators and barriers for teaching IL classes, and positive and negative outcomes that the instructors have observed in students completing IL classes. Ten participants responded to interview questions via Zoom. This section includes implications for action and recommendations for future studies.

Implications for action. Participants' responses provided first-hand experiences and qualitative data regarding ways to make teaching IL more effective, as well as ways to attempt to fight fake news, conspiracy theories, misinformation and disinformation. Many of the results of this study were also supported in the literature review of prior studies and information regarding the subject matter.

All participants in the study felt strongly that IL and advanced critical thinking skills were more important than ever in the digital age. Participants all agreed that research skills, critical thinking skills, and other IL skills were not only crucial for college success, but imperative for lifelong learning. Colleges and universities that do not offer IL classes should consider offering courses or even majors and minors in IL. Participants also felt strongly that one-shot IL sessions were incomplete and ineffective. Institutions that only offer one-shot sessions should expand these to full courses.

Some participants felt the relationship between librarians and classroom instructors was sometimes awkward or even problematic. Administrators and educators should explore other options, such as allowing librarians to teach the entire course by themselves or making clear that the course is a collaboration between the two parties. Both the classroom instructor and the librarian should be listed on the class schedule and on the syllabus if they are team-teaching the class.

Recommendations for future research. While this study divulged a wealth of detailed, personalized experiences from IL instructors about the variety of issues they face, the study included only 10 participants. Future research should involve an increased number of participants. The setting for the current study was limited to private schools in Kansas. In addition to including participants from states outside the Midwest, future studies should also examine the perceptions of instructors who teach IL in public higher education institutions.

Half of the participants in the current study reported problems in coordinating their efforts with faculty members who were not librarians and stated that the faculty members they worked with had little understanding of librarians' knowledge or abilities.

In higher education institutions where IL classes are structured in a team-teaching model that includes the pairing of librarians and faculty, a qualitative study examining the attitudes and perceptions of faculty members who have facilitated IL classes with librarians could be conducted.

The current study indicates confirmation bias is an ongoing problem with a certain segment of the student population. A future study examining IL instructors' experiences on how to reach closedminded students, and students who come in with a "know-it-all attitude"--as one participant in the current study referred to--is also recommended. A potential qualitative, phenomenological, constructivist study about student perceptions after completing IL coursework is also recommended for a future study. Qualitative research questions could focus on whether or not the students' attitudes about the media have changed after enrolling in an IL class and whether or not the students' ideas of what information and sources are trustworthy have or have not changed. In addition, the research could examine whether or not there is any kind of major shift in the students' paradigm about a particular belief when finding, retrieving, analyzing, and synthesizing news and information. Future studies could also focus on how to 'reach' students who are resistant to exploring multiple venues of information related to controversial topics.

At least one participant in the current study mentioned how resourceful librarians must be when trying to teach with shrinking and ever-dwindling budgets. Future research could examine how librarians and other IL instructors are dealing with financial cuts and limited budgets without sacrificing the quality of their teaching, research, and scholarship. Almost every higher education institution mentions critical thinking as a

benchmark for students to demonstrate prior to graduation. Future research could focus on the importance administrators place on critical thinking and the alignment of budget allocations to support student acquisition and demonstration of critical thinking as they progress through general education and content discipline courses.

Concluding remarks. The general public seems to have lost faith in higher education and in the news media (Aaronovitch, 2010; Rubin 2019). Those who do not trust the news media or educators seem unable to differentiate between real, verified information and fake news. Some of them even seem to have it turned around backwards where they disbelieve real news and information from peer-reviewed journals, yet they *believe* fake news without a shred of evidence (Sullivan, 2020). Conspiracy theories and disinformation about important issues such as Black Lives Matter and CRT are being maliciously spread at an alarming rate (Dalton, 2021). Q-Anon adherents continue to spread more and more outrageous theories that no educated person should believe (Beene & Greer, 2020).

Due to the proliferation of fake news, conspiracy theories, propaganda, disinformation and misinformation, librarians, journalists, and academics from all disciplines are realizing the crucial importance of IL. New forms of technology such as *deepfakes* could even exacerbate the problems of malicious disinformation, fake news, and conspiracy theories in the future (Media Literacy Now, 2021). Investing in IL may help guide us into a better, multicultural future with a more educated populace.

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Appendices

Appendix A. Baker University IRB Approval

Baker University Institutional Review Board

th February 7 , 2022

Dear Joey Skidmore and Tes Mehring,

The Baker University IRB has reviewed your project application and approved this project under Expedited Status Review. As described, the project complies with all the requirements and policies established by the University for protection of human subjects in research. Unless renewed, approval lapses one year after approval date.

Please be aware of the following:

1. Any significant change in the research protocol as described should be reviewed by this Committee prior to altering the project.
2. Notify the IRB about any new investigators not named in original application.
3. When signed consent documents are required, the primary investigator must

   retain the signed consent documents of the research activity.

4. If this is a funded project, keep a copy of this approval letter with your

   proposal/grant file.

5. If the results of the research are used to prepare papers for publication or oral

   presentation at professional conferences, manuscripts or abstracts are requested

   for IRB as part of the project record.

6. If this project is not completed within a year, you must renew IRB approval.

If you have any questions, please contact me at npoell@bakeru.edu or 785.594.4582. Sincerely,

Nathan Poell, MLS
Chair, Baker University IRB

Baker University IRB Committee Sara Crump, PhD

Nick Harris, MS Christa Hughes, PhD Susan Rogers, PhD

Appendix B. Invitation to Participate

Invitation to Participate

Hello! My name is Joey Skidmore, and I am a Doctoral student in the School of Education at Baker University. I am contacting you to invite you to participate in my dissertation research. My research focuses on the perceptions of librarians who are teaching Information Literacy courses. The research questions and interview questions are provided at the end of this invitation. Your participation will involve one interview that will take place at a mutually agreed upon time via a Zoom meeting, lasting no longer than 45 minutes. To insure accuracy in the transcription of your interview, I will send you the transcript of your interview and you will have the chance to correct any inaccuracies. Your interview will be recorded, and the recording and transcript of your responses to interview questions will be coded with an anonymous code (e.g., Participant 1, Participant 2, etc.) to preserve your anonymity. Results of the study will be described in my dissertation and will be presented at my dissertation defense and professional meetings. Your identity will not be revealed. It is my hope that the results of the study can be useful to you, as well as other academics and librarians who are involved in equipping college students with strategies related to information literacy.

Participation in the study is voluntary. No incentives or compensation will be provided for participation. There are no risks or discomfort associated with participation in the study. If you decide to participate, you may withdraw from the study at any time or decide not to answer any question you are uncomfortable answering.

If you have any questions about the study, please contact me using the contact information provided below. If you are willing to participate, please contact me at the

number or email listed below and I will contact you to set up our interview. Thank you for your consideration.

Sincerely,

Joey
Max Joseph Skidmore, Jr. M.A., MFA
Maxjskidmore@stu.bakeru.edu
(816) 787-5381

Dissertation Advisor
Dr. Tes Mehring
tmehring@bakeru.edu

Interview questions are provided below:

1: Which of the following best describes where you grew up:

a. Small Town (under 10,000)

b. Big City (over 100,000)

c. In-between (between 10,000 & 100,000)

***2*:** Where did you grow up?

3: What racial or ethnic group do you identify with?

a. Black/African American

b. White

c. Hispanic or Latino

d. Asian

e. Native American/American Indian

f. Mixed or Other

4: What gender are you?

a. Male

b. Female

c. Other/non-binary/prefer not to answer

***5*:** Which of the following age groups do you belong to?

a. Age 22-34

b. Age 35-50

c. Age 51-65

d. Over age 65

***6*:** Does the educational institution that you work for categorize you as part-time or full-time?

***7*:** What is the total number of IL classes you have taught in your academic career?

***8*:** What is the purpose of the information literacy course/courses that you teach?

***9*:** What goals and student learning outcomes do you include on your information literacy class syllabus?

***10*:** What have you found to be some of the most effective teaching methods or strategies that you have used in your information literacy classes?

***11*:** What is your preferred method of teaching an information literacy class?

***12*:** Are there particular activities, assignments, or readings that you deem useful and effective when teaching information literacy classes?

***13*:** What resources or supports have helped facilitate teaching an IL course?

***14*:** What are the biggest challenges or obstacles you have experienced related to teaching an information literacy class?

15: What are some of the positive outcomes that you have observed in students who have completed an information literacy class?

16: What are some of the negative outcomes that you have observed in students who have completed an information literacy class?

17: What else would you like to add about teaching IL courses?

Appendix C. Consent Form

Consent Form

Please consider this information carefully before deciding whether to participate in this research.

Purpose of the research:

This qualitative study is being conducted to understand perceptions of librarians who are teaching an Information Literacy course.

What you will do in this research: You will be asked to participate in one interview that will be recorded via Zoom and transcribed.

Time required: The interview will take approximately 45 minutes or less.

Permission to Video Record: The Zoom interview will be recorded to facilitate accuracy in creating a transcription of the interview. Your consent to participate in the interview also indicates consent to video-record the interview. The researcher will be taking notes throughout the interview.

Risks: No risks or discomfort are anticipated as a result of participating in the interviews.

Benefits: You will not receive any compensation or tangible benefits for participating in this research.

Confidentiality: Your responses to interview questions will be kept confidential. A non-identifiable code (e.g., Participant 1, Participant 2, etc.) will be assigned to your audio tape and interview transcript to protect your anonymity. At no time will your identity be revealed. The recording will be destroyed upon completion of the transcription. Transcripts of interviews will be stored on a thumb drive accessible only to the researcher in a secure location and destroyed after five years.

Participation and withdrawal: Your participation in this study is completely voluntary and you may withdraw from the study at any time. You may withdraw by informing the researcher that you no longer wish to participate (no questions will be asked). You may choose to not answer any question.

Transcript Review: Once a transcript of your interview has been prepared, it will be sent to you for you to review for accuracy.

To contact the researcher: Joey Skidmore, (816) 787-5381;

maxjskidmore@stu.bakeru.edu

Agreement:

The nature and purpose of this research have been sufficiently explained and I agree to participate in this study. I understand that I am free to withdraw at any time without incurring any penalty. My signature below indicates agreement to participate in the study and to video-record the interview session. The researcher will be taking notes throughout the interview.

Signature: _____ Date: _____

Name (print): _____